A

LECTURE

INTRODUCTORY TO THE

THEORY and PRACTICE

OF

MIDWIFERY.

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MIDWIFERY:

Including the Hiſtory, Nature, and Tendency of that Science; with a View of its ſeveral Branches, and the proper Means of attaining a perfect Knowledge of the Whole. Together with Animadverſions on the Qualification and Deportment of an ACCOUCHEUR: Publicly delivered the 4th of *October*, 1773.

By JOHN LEAKE, M. D.

Member of the Royal College of Phyſicians, *London*;
And Phyſician to the WESTMINSTER LYING-IN HOSPITAL.

Parce precor gravidis, facilis Lucina, puellis;
Maturumque utero mollitur aufer onus! OVID.

The THIRD EDITION corrected, with ADDITIONS.

LONDON: Printed for R. BALDWIN, in *Pater-noſter Row*.

Lately were published, the third Edition corrected, with Additions and a general Index, Price 5s. in Boards,

PRACTICAL OBSERVATIONS on the acute Diseases incident to Women, under the following heads.

Observations on the CHILD-BED FEVER; deduced from the Symptoms of that Disease taken from the living Body, and from an Examination of its morbid Appearances after Death; together with the Methods most conducive to the Cure; illustrated with Cases, and *Forms of Medicine* adapted to each.

On the *Prophylactic Method*, or Means which contribute to prevent the Disease.

On the Nature and Treatment of *Uterine Hæmorrhages*, or Floodings.

On the Cause and Cure of *Convulsions*, and the Diseases most fatal to Women during the State of Pregnancy.

By JOHN LEAKE, M. D.

Printed for R. BALDWIN, *Pater-noster Row, London.*

By the following Letter, with which the Author was lately honoured, it appears, that the above Work is translated into French, *and will soon be published in that Language.*

Monsieur Monsieur *John Leake*, docteur en medecine, membre du collège royal des medicins de Londres, &c.

MAximâ cum voluptate et non sine fructû, Vir illustrissime et ornatissime, tuum legi et relegi librum, cui titulus est: *Practical Observations on the Child-bed Fever, printed London* 1772. In illo enim reperi animadversiones curiosas et plane novas de affectibus omenti, disquisitiones nitidas et sagaces de curatione febris puerperium insequentis, dubitationes quas dictarunt prudentia et moderatio contra systema nostri Celeberrimi *Levret*, cogitationes accuratas de hæmorrhagiis ante et post partum. Quid magis? in toto judicium et scientia veri boni que medici refulget. his itaque perpensis, seu ægrorum salutem, seu artis medicæ incrementum prospiciam, tuum librum cunctis gratissimum duxi; qua propter ut melius innotescat, hunc in idioma gallicum converto, jam ferme absoluta est interpretatio; et paucos intra menses, si tibi libet, prelo publico poterit in Franciâ committi.

Mihi familiaris et colendus amicus habet nunc sub prelo tractatum idiomate Gallico scriptum de hæmorrhagiis uterinis. Plurimis abhinc mensibus auctori communicaveram versionem tuæ sectionis Væ *Of the nature and cause of uterine hæmorrhages, and their treatment, &c.* in hoc novo tractatu mei amici, multa sunt de te excerpta cum laude tui in enii et tui operis.

Auctor novi tractatûs, post expositionem variarum methodorum contra hæmorrhagias uteri, nil efficacius invenit quam obturatio vaginæ cum Linteolis vel siccis, vel imbutis aceto, sed profunde immissis. Hæc methodus olim vetustissimis nota, in oblivione quodam modo jacebat; sed nunc resurgit longâ et felici experientiâ stabilita; et enim introductio linteorum in vaginâ, dum sistit sanguinis fluxum, juvat quoque formarionem coaguli; interim uterus novas acquirit vires; sese conglomerat et constringit, contractionibusque propellet coagulatum sanguinem et linteola immissa; sed ut obturamentum vaginæ sit semper saustum, plurimæ sunt adhibendæ cautiones: scilicet, mollis compressio uteri cum manû, applicatio supra pubem linteorum aquâ frigidâ, aut forsan melius aceto madidorum, usus aeris frigidi, et, ut uno dicam verbo, quidquid potest juvare uteri contractiones et vasorum sanguinem fundentium clausuram.

Celeberrimus *Hoffman*, *Cornelius Tricen*, multique alii jam indicarant obturamentum vaginæ contra hæmorrhagias uteri; hæc methodus tibi, Vir clarissime non erat ignota; altamen in praxi vix erat explorata. In curriculo mensis proximi, ut opinor, novus tractatus mei amici evulgabitur; et in illo videre poteris ferme omnia quæ scripsisti de opio, medicamentis astrigentibus, venæ sectione, &c.

Vale, Vir clarissime; et quanquam sim extraneus, et nullo modo tibi notus, non dedigneris, quæso, meam sinceram admirationem.

Datum Divione die 21. 7bris. 1775. FRANCISCUS CHAUSSIER,

Chirurgiæ magister in urbe Divionensi apud Burgundos, acad. reg. chirurgiæ Parisiensis correspondens, &c.

P. S. Si velis mihi responsum dare, subjungo inscriptionem epistolæ in idiomate gallico:

A Monsieur Monsieur Chaussier, Maître en Chirurgie, &c. à Dyon.

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A

LECTURE

INTRODUCTORY TO THE

THEORY and PRACTICE

OF

MIDWIFERY.

THE ſubject of this LECTURE relates to a branch of medical ſcience, in which we are all intereſted; not only as men appointed to diſcharge the important duties of their profeſſion, but alſo as members of ſociety, who ought to look on the exerciſe of it as a relative obligation, tending to the preſervation of that amiable part of the creation, woman, from whom we derive our being and our greateſt happineſs.

A previous knowledge of the nature and tendency of any art before we begin to ſtudy it, is both ſatisfactory and neceſſary; what I have therefore, gentlemen, to lay before you, on the preſent occaſion, may be conſidered as an introduction to a COURSE OF LECTURES on the Theory and Practice of Midwifery.

The earlieſt accounts we are able to obtain, inform us, that Midwifery, like other branches of ſcience, took its beginning from neceſſity; and conſequently, is ſo extremely ancient, that it ſeems to have ſprung up with the firſt race of mankind; for notwithſtanding the human body, in its original ſtate, came perfectly formed from the hand of the Creator, with all its parts wonderfully adapted to perform their ſeveral functions; and altho' its ſtrength and vigour was then unimpaired by intemperance and diſeaſe; yet Nature, in the production of our ſpecies, not being always able to ſupport and maintain her own laws; the difficulties to women in travail were nearly the ſame in the firſt ages as at preſent, and conſequently, ſtood in need of the like aſſiſtance; although, from the imperfection of the art, it could not then be had.

That which principally enobles any ſcience, is the dignity of its object, and the public utility ariſing from it; conſequently, if we may rate the value of Midwifery by the advantage it procures to the human race, it will be found ſuperior to all others; inaſmuch as moſt of them are only ſubſervient to the conveniences of life, but on the due exerciſe of this art immediately depends the preſervation of life itſelf, even in a double capacity. Hence the poetical invocation of the ancients:

"*Phœbe fave*; *laus magna tibi tribuetur, in uno*
"*Corpore ſervato, reſtituiſſe duos.*" — TIBULL.

Mid-

Midwifery has indeed often been degraded by the ignorance and unworthineſs of many who practiſed it; and ſometimes has been made a ſubject of levity by the licentious vulgar. Some of the medical profeſſion there are, who, with more vanity than ſolid ſenſe, think it below their dignity to exerciſe a manual art, or endeavour to ſave the life of their fellow creature by any other means than that of directing medicines or feeling the pulſe;—means too often vague and ineffectual, without the interpoſition and aſſiſtance of nature herſelf. But let it be remembered, that learned men in all ages have not only ſtudied this art themſelves, but alſo recommended it to the attention of others, as a *curious branch of natural philoſophy*, which will afford the higheſt entertainment to a contemplative mind, and as a thing of the utmoſt importance to the community. It is not, indeed, neceſſary that a phyſician ſhould practiſe Midwifery; but if he is utterly unacquainted with that ſcience, he is leſs entitled to the name, which implies a general and extenſive knowledge of the healing art.

Among the ancients, that venerable parent of phyſic, *Hippocrates*, not leſs illuſtrious for ſocial virtue than his profound knowledge of philoſophy, wrote ſeveral books profeſſedly on Midwifery, and the diſeaſes incident to women; and *Ariſtotle*, who was Tutor to *Alexander* the Great, and by his order am-

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ply ſupplied with whatever the known world could afford relative to natural hiſtory and the generation of animals, did not diſdain to write on the ſame ſubject; as did alſo *Avicenna*, who was a phyſician and an Arabian Prince.

Of the moderns, the celebrated *Harvey*, phyſician to king Charles, who diſcovered the circulation of the blood, alſo diſcourſes largely on generation and the birth of the human Fœtus; and *Ruyſch*, that laborious inveſtigator and promoter of anatomical knowledge, not only practiſed midwifery, but was appointed Profeſſor of that art, by the ſtates of Holland. The learned *Aſtruc*, royal Profeſſor of phyſic at Paris, and phyſician to the French king, gave public lectures on Midwifery; and alſo *Albinus*, an illuſtrious Profeſſor of anatomy and ſurgery in the univerſity of Leiden.

Daily experience affords ample teſtimony of the great utility of Midwifery, whether it regards the preſervation of individuals in pregnant women, or extends its influence to the good of ſociety in general. In preternatural caſes, or profuſe uterine hæmorrhages, where nothing but ſpeedy delivery can ſave the patient's life; the timely and judicious aſſiſtance of an *Accoucheur*, ſnatches her, as it were, from the brink of the grave, and often preſerves her infant alſo; he reſtores to the deſpairing huſband

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the tender partner of his boſom, and gives conſolation to all thoſe who are united to her by the ties of blood and natural affection.

The art of Midwifery alſo principally conſtitutes and illuſtrates the *Medicina forenſis*, or that part of medicine which contributes to the public adminiſtration of juſtice, in what relates to virginity, pregnancy, and the natural period of uterine geſtation; alſo to the forming a judgment whether unlawful means have been uſed to occaſion abortion. It likewiſe directs us to the moſt proper methods of diſcovering whether an Infant was ſtill-born or deſtroyed after the birth. Beſides thoſe caſes, in which the deciſion of the *Accoucheur* has no inconſiderable ſhare, there are many other important points which could not be ſatisfactorily cleared up, or properly determined without his interpoſition; and therefore, the verdict of juries, reſpecting the legitimacy of children, indictments for rapes, or actions to obtain divorce, are chiefly guided by his report.

We are told, that when women under ſentence of death plead their belly, execution is ordered to be delayed; and that this matter is generally determined by a jury of matrons; but, did not the law of the land expreſsly thus command it;

thoſe judges, who would admit of ſuch juries, ought to be deemed matrons as well as they.

To err on the charitable ſide, is certainly excuſable; and did the evil reſt here, it might be paſſed over in ſilence; but thoſe who have not put off all ſenſe of feeling and humanity, muſt hear with horror and regret, that many children have, from thence, fallen victims to puniſhment, who were not ſharers in guilt, and have been entombed alive within their mothers' womb. *Dionis* mentions a caſe of this kind, where a midwife of the Chatelet at *Paris* having examined a ſervant under ſentence of death, and who pleaded her belly, poſitively declared ſhe was not pregnant; in conſequence of which ſhe was immediately executed; but when the body was publicly opened, a child was found in her womb; the midwife was therefore obliged to pay a fine, and forbid to practiſe ever after.

How often have young women brought forth children, who a few hours before had been declared pure virgins? Indeed, men of knowledge and ſkill in their profeſſion are not always free from error, and that is always moſt excuſable in thoſe who have ſufficient reſolution and candor to confeſs it, for the benefit of others; but if ſuch as have judgment are ſometimes miſtaken, ſurely it ought to be a leſſon of humility and cau-

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tion to thoſe who either have very little or none at all. In a word, if it is of conſequence to prove the legitimacy of children, and to prevent a ſpurious iſſue from inheriting the property of the lawful heir; if it is of importance to acquit the innocent and puniſh the guilty, in the moſt horrid and unnatural of all crimes, that of child-murder; the public utility, and private advantage of that ſcience, on which ſuch determinations chiefly depend, will then become ſufficiently evident.

The wiſdom of the Creator is not more conſpicuous in the great and original work of creation itſelf, than in the means by which ſucceeding generations ſpring up and people the world; and if the inanimate bodies of ſhells, foſſils, and other concretes, or the more beautiful and organized parts of matter in the vegetable ſyſtem, ſo often engage the attention of the curious; ſurely, the *Obſtetric Art* would afford them entertainment much more rational and intereſting. As it comprehends, in degree, the natural hiſtory and phyſiology of the human body, and gives us an idea of the order and original diſpoſition of its ſeveral parts; ſo it likewiſe tends to illuſtrate and explain the faculties of the mind reſulting from them; the organs of ſenſe being the firſt inlets to all our mental perceptions, which vary in their degrees of perfection, according to the perfect modification of thoſe parts, and the due

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performance of their ſeveral functions. It would, indeed, be impoſſible to diſcover, by the niceſt anatomical reſearches, that exquiſite peculiarity of ſtructure in the brain, which conſtitutes the difference between the wiſe man and natural fool; yet, as every effect implies an exiſting cauſe, ſuch an identical difference may be reaſonably inferred; for it would be unphiloſophical to ſuppoſe any eſſential difference in the nature of the intellect or ſoul itſelf.

No ſcience leads us ſo immediately to a ſurvey of our own origin as this; it preſents to our view the rudiments of the fœtus, and ſhews how they gradually unfold themſelves in magnitude and figure, from conception to the time of birth: Thus we may obſerve,

"*How the dim ſpeck of entity began,*
"*T' extend its recent form and ſtretch to man.*"

GARTH.

Here it may alſo be remarked, how the cauſes of things remain inactive, till they are excited into motion by other ſubordinate cauſes; for the *primordia* of the human body, like the ſtamina of plants in their ſeed, lie dormant and concealed in miniature, in the female ovum, till they are ſupplied with a vital principle, and rendered prolific by the ſubtile *aura genitalis* of the male. The philoſopher and phyſiologiſt may then trace with wonder, the revolutions of matter in the human

embryo,

embryo, diveſting itſelf by degrees of its inert qualities, till by a certain new modification of parts, it becomes an organized body, and *vegetates into life:* 'Tis now ſupplied with with pipes and ſtrainers fit to convey its juices, but having yet only circulation without ſenſation, it reſembles the growth of vegetables, and, like a paraſite plant, germinates and ſtrikes root in the womb.

The ſolids of a fœtus, and all its component parts, even the bones themſelves, were once in a *fluid ſtate*, and void of all ſenſation; being derived from the common elements of matter taken into the body for nouriſhment; and it appears highly probable, at leaſt to me, that the extraordinary property reſiding in matter, called *Irritability*, is the firſt inſtrument which Nature employs towards the production of *animal life*. 'Tis owing to this, that the *ſenſitive plant* ſhrinks from the touch, and that the fleſh of ſlaughtered animals palpitates and trembles after death, on being rudely touched.

Hence then, the *ſtamina vitæ* of the embryo may be conſidered as an organized body which advances to maturity by ſlow and inſenſible degrees: At firſt it admits the circulation of a fluid through its delicate vaſcular ſyſtem; as ſoon as it becomes *Irritable*; the *punctum ſanguineum ſaliens*, the *primum vivens* and *ultimum moriens*, ſo beautifully deſcribed by the

immortal *Harvey*, ſets the animal machine a going; and in proceſs of time, the diminutive being is endowed with life, motion and ſenſation; and at laſt, when arrived at its utmoſt period of perfection in the adult, it becomes poſſeſſed of thoſe ſublime faculties which do honour to human nature. Such once were *Newton* and *Deſcartes*, and of ſuch humble materials may other *Alexanders* and *Cæſars* be made, under the forming hand of the Almighty Architect.

Thus by a real tranſubſtantiation, we begin to "*exiſt on* "*many thouſand grains that iſſue out of duſt*;" but how and when the myſtical union of intellect with matter is effected, muſt ever remain a ſecret, and is only known to the Divine Author of our being.

'Tis preſumed there can be no beginning in an animal body without the agency of an immaterial principle; but it muſt be obſerved, that the concurrence of material phyſical cauſes are alſo neceſſary; for the vital principle in the ova of animals would lie dormant for ever, was it not excited into motion by the application and energy of heat*. It may alſo be

* *Natura in animali omnino animal eſt. Ipſa fabricat Calces, Dentes, Cornua, ad vitam tuendam; itaque ijs et utitur, & ſcit quo ſit utendum modo, ſine objecto aut Phantaſia ulla.* J. C. Scallig. Exer. 307. Sect. 29.

be remarked, how the faculties of the mind increaſe with the body, from infancy to manhood, and then gradually decline as it tends to decay.

During this tedious progreſs of animal life, from the firſt dawning of a living principle to the laſt extreme of old age; phyſiologiſts have ſuppoſed there muſt have been an entire tranſmutation or total change of the whole body, ſo as to deſtroy every idea of *perſonal identity*; and therefore the celebrated Mr. *Lock* places it in *conſciouſneſs* only. But altho' the adventitious ſubſtance of the body, derived from the aliment taken in for its nouriſhment, ſhould be many times changed, its *original ſtamina* muſt remain identically the ſame.

The ways of providence are paſt finding out; yet theſe very perplexities with which we meet in the purſuit of knowledge may afford us ſome advantage. They will abate the extravagance of enthuſiaſm and correct that vanity and ſelf-ſufficiency ſo natural to the mind of man. On the contrary, they will teach him diffidence and humility, by ſhewing him many things of which he is either doubtful or totally ignorant.

The learned Dr. *Bentley*, in his confutation of atheiſm, has clearly ſhewn, that the force of gravity, however it may in-

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fluence the larger maſſes of matter, is utterly inſufficient to account for the formation of animal bodies. The ſcience under conſideration has not been leſs eminently ſerviceable to the cauſe of religion, by demonſtrating the wiſdom of the Creator in the ſtructure of their ſeveral organical parts, as well as in affording experimental facts which refute the doctrine of *equivocal generation*, that great barrier and ſubterfuge of the atheiſtical ſect of philoſophers; who concluded, according to their principles, that if *Crocodiles* and other animals were produced by putrefaction, in the banks of the river Nile; that men alſo, like ſo many animal plants, might originally ſpring up by chance from the prolific mud of their mother earth; to the total excluſion of all divine agency.

This pernicious notion which prevailed for many centuries, was at laſt oppoſed by *Redi*, a celebrated naturaliſt of Florence; who by ſeveral curious experiments inconteſtably proved, that the concurrence of both ſexes is eſſentially neceſſary towards the production of the ſmalleſt animals as well as the largeſt; and that thoſe putrid ſubſtances, ſuppoſed to have generated inſects, only afford them a proper nidus or hatching-place, but never produce them by ſpontaneous formation.

It muſt, indeed, be confeſſed that ſome particular animals are produced in a manner very ſingular and anomalous; for a

Polypus

Polypus cut into ſeveral parts will generate ſo many diſtinct *Polypi*, with all the faculties belonging to that which before was uniformly ſuch. How ſtrangely different then may be the effect of the ſame cauſe, in animals of a different ſpecies? ſince the diviſion which would deſtroy a human body, tends to generate and multiply that of a *Polypus*.

This extraordinary creature, I think, may be conſidered as an intermediate link, connecting the two different orders of animal and vegetable bodies; for the ſenſitive and generative faculty of the firſt, may be perceived to deſcend gradually in the ſcale of animal beings, till it dwindles into the inanimate growth of plants. As nature inſenſibly drops the animal proceſs, ſhe begins to play the mimic, and tranſgreſs her own laws: Thus *ſnails* and *earth-worms*, according to *Swammerdam*, are all of the hermaphrodite kind, and whilſt they impregnate are each reciprocally impregnated; and that uncommon reptile the *Surinam toad* does not produce its young from the interior parts of its body, like other animals, but from certain cups or ſockets placed upon its back.

Leſſer in his Teſtaceo-theologia aſſerts, that the *balani marini*, *rock muſcles* and *oyſters* are not only hermaphrodites, but ſuch as without any manner of concurrence with each other, have within themſelves a power to generate and bring

forth their kind*. An impregnated female *Aphis*, or *plant-louſe*, can communicate to her offspring the extraordinary power of producing others in ſucceſſion even to the fifth progeny, without any freſh impregnation; and what is equally aſtoniſhing, the ſame ſpecies of *Aphis*, which in ſummer was *viviparous*, becomes *oviparous* in autumn. It is alſo wonderful, that the *Coccus* and *Oniſcus* no ſooner bring forth their young, than they are devoured by them. And laſtly, if we deſcend to vegetables, however ſtrange it may appear, it is certain that the *farina* or ſeed of the male flower impregnates that of the female, otherwiſe no fruit would be produced; for *Linnæus* obſerves that the ſavin tree was fruitful in the upſal garden, where the male plant grew near it, but in the clifford garden, where the male was wanting, there was no fruit at all.

As the rudiments of the fœtus have already been conſidered, it is now neceſſary to remark, that the œconomy of Nature, in perfecting what ſhe had begun, is no leſs extraordinary; whether it regards the vital functions of the womb in nouriſhing the child, or the amazing expulſive force by which it is brought forth. After puberty, the female organs are ſo diſpoſed as to prepare a larger quantity of blood than is neceſſary for the

* No *Hermaphrodites*, among the inſect tribe, have as yet been diſcovered.

the nouriſhment and immediate ſupply of the woman's body; and therefore, when ſhe is not with child it is periodically carried off once a month, leſt it ſhould overfil the veſſels and incommode her conſtitution; but as ſoon as ſhe becomes pregnant, it is ſent to the womb for the nouriſhment of the *fœtus*; conſequently, during nine months' geſtation, the menſes are naturally wanting. When the infant arrives at its utmoſt bulk, the uterus can then no longer contain it without danger of burſting; the violent diſtention of its fibres now creates pain, which puts the whole uterine ſyſtem into a ſtate of re-action, and from thence the birth is at laſt effected; ſo that what are called labour-pains are only the effect of that *niſus in contractionem*, or powerful endeavour of the womb to expel its contents.

From the vaſcular contexture and peculiar fabric of the uterus, its cavity, which in the unimpregnated ſtate was not more capacious than that of a large filbert, at laſt becomes ſufficient to contain a child weighing ſeven or eight pounds; and what is ſtill more extraordinary, it does not, like a maſs of wax or other ductile ſubſtance, become thinner in proportion as it is extended, but uniformly preſerves its natural thickneſs from conception to the time of birth; had it been otherwiſe, Nature would have run counter to her own deſigns, and inſtead of bringing the fœtus to maturity, the womb muſt

have

have burſt, and the purpoſes of conception would have been totally defeated.

As ſoon as the child is born, the circulation changes, and leſs blood being wanted at the uterus, a certain quantity of chyle, which before had nouriſhed the fœtus, is now ſent to the breaſts, to ſupply the new-born infant with that balſamic fluid called milk. Hence it may be obſerved, how admirably this organ is adapted to anſwer the important purpoſes of generation; namely, to allow of vaſt extention without burſting; ſecondly to contract with amazing force in labour, for the excluſion of the child; and laſtly, by means of the ſame power, gradually to return to its former ſtate.

Immediately after the infant's birth, its lungs which had remained inactive during nine months' geſtation, are blown up with air; and it is ſcarcely to be imagined, that the cauſe of what ſo naturally then happens to every living animal, ſhould in itſelf be ſo obſcure, that the ableſt phyſiologiſts have attempted to account for it in vain; ſo that it ſtill remains a queſtion, in what manner the act of *reſpiration* commences in animals newly brought forth.

Borelli and *Boerhaave* aſcribe the beginning of reſpiration in the fœtus, to an increaſed motion of all its muſcles in the

the time of labour; and among the reſt, thoſe of the intercoſtals and diaphragm, which are the principal inſtruments of breathing. But that incomparable philoſopher Mr. *Boyle*, as well as *Veſalius*, has experimentally ſhewn, that puppies cut out of the womb begin to breathe, when expoſed to air, in the ſame manner as if they had been naturally brought forth. Beſides, we ſhall ſhew in the following Lectures, that the fœtus does not uſually ſtruggle in the birth, as generally thought, but is a mere paſſive body, which acts as it is acted upon by the vital impulſe of the uterus, and in itſelf utterly deſtitute of all power to facilitate its own exit.

Pitcairn ſuppoſes, that the air, by its gravity, ruſhes into the lungs of the infant as into a vacuum; but if this was true, it would alſo find entrance into the lungs of a ſtill-born child; and that machine which we call a pair of bellows, would be blown up by the ſame atmoſpherical preſſure, which we know is not the caſe.

Baron *Haller* ſuppoſes, that reſpiration commences from the child's endeavour to cry, in conſequence of the pain it ſuffers during labour; but this is by no means an adequate reaſon, and very unlike what has uſually been advanced by that learned and ingenious author; for, notwithſtanding all

living animals naturally begin to breathe as ſoon as brought forth, they do not all make a noiſe ſimilar to that of crying in the human ſpecies; and further, the act of crying being ſubſequent to breathing, the firſt is manifeſtly owing to the laſt; for it would be palpably abſurd to ſay, that a child could either cry, or even endeavour to do ſo without the power of breathing.

The late celebrated Dr. *Whytt* will not allow, that reſpiration ariſes from cauſes merely mechanical; and therefore recurs to a ſentient principle, which puts certain muſcles in motion at particular periods; hence the infant is born with a natural propenſity or appetite for breathing, ſimilar to a want of meat or drink in the adult. He ſuppoſes, that in conſequence of a child's ſtruggles in the birth, a larger quantity of blood will be ſent to the lungs, which ſtimulates them into a reſpiratory motion; but this, like every other reaſon hitherto advanced, is inſufficient to ſolve the queſtion at firſt propoſed; ſince it may eaſily be proved, that the cauſe of breathing is not originally impreſſed on the lungs themſelves, but on the organs of reſpiration; for ſince air by its gravity cannot preſs into a pair of bellows, 'till their ſides are pulled aſunder, neither can the lungs of a new-born infant be inflated and begin to play, 'till they are freed from all preſſure by the action of the intercoſtal muſcles and diaphragm,

phragm, which raiſes the ſternum and enlarges the cavity of the breaſt.

To proceed; when we come to examine the parts peculiar to the fœtus, there the immediate finger and *fiat* of the Creator ſtill diſcovers itſelf in a more conſpicuous manner; for, the *canalis arterioſus* and *foramen ovale* are manifeſtly deſigned as *diverticula* to carry off the blood from the heart, and hinder it from ruſhing upon the impervious veſſels of the lungs, which being as yet uninflated and compreſſed, could not allow it to paſs that way; and had it not been for this curious and cunning device of Nature, ſince the whole maſs could not circulate through the pulmonary artery, as in the adult, it would neceſſarily have regurgitated on the heart and produced a mortal ſuffocation.

As ſoon as the child has inſpired air, the devious paſſages already remarked, being uſeleſs, are ſhut up and obliterated; except in *amphibious animals*, where it is neceſſary they ſhould ſtill remain open; for, whilſt they dive under water, their lungs muſt ceaſe to play, and the blood cannot then force its way through them; ſo that ſuch creatures, though deprived of air, will ſtill ſuſtain life, and in the ſame manner as they did in utero. This probably may be the reaſon, why young animals ſurvive longer in the exhauſted receiver of the air-

pump

pump, than old ones of the ſame ſpecies; and alſo why drowned perſons, and thoſe who were executed, have ſometimes been ſurprizingly reſtored to life. Hence alſo the whimſical attempt to render puppies or other young animals *amphibious*, by alternately putting their heads under water and into the common air; for, in the firſt caſe, it is preſumed the *canalis arterioſus* remains open to the courſe of the blood; and in the laſt, that it will circulate through the lungs.

The great Dr. *Harvey*, in a latin epiſtle to *Riolanus*, propoſed the two following queſtions:

"*Cur fœtus in utero, non reſpirans aërem uſque ad menſem decimum, ob defectum reſpirationis non ſuffocatur?*"

"*Quare in utero exiſtens, vel adhuc intra ſecundinas, nondum exitum adeptus, vitam ſine reſpiratione retinere poterit, quam primum vero aëri ſemel expoſitus, niſi reſpiraverit, vitam retinere non poſſit?*

Op. Harv. a colleg. med. Lond. edit. p. 132.

Both the above queſtions will be anſwered when we come to the Lecture on the fœtus; it is here only neceſſary to remark, that as animals in utero do not exerciſe the faculty of breathing, reſpiration, under certain circumſtances,

is

is not eſſential to life. Indeed, might we truſt our reaſon or attend to our own feelings, it would be as difficult to conceive that any animal could live without reſpiration, as without circulation itſelf; which ſhews that the Author of nature can eaſily find expedients to accompliſh his deſigns, when human invention is utterly at a loſs and put to confuſion.

Several of the preceding phenomena may be rationally accounted for, as we ſhall endeavour to ſhew in the *ſubſequent Lectures*; whilſt others are involved in obſcurity and too remote for human inquiry. It would be difficult, for inſtance, to comprehend, how the reſiſtance of the ſtrong, elaſtic uterine fibres, is overcome by the gradual influx of juices into the tender ſtamina of the embryo, after conception; and how the ſame cauſe exerts itſelf, in the laſt months of pregnancy, with ſuch amazing power, as not only to become ſuperior to the action of the uterus, but alſo to the additional preſſure of the abdominal parietes in which it is contained.

Here it might be alſo aſked, what determines the growth of animals and puts a *ne plus ultra* to their further enlargement, or, why they do not continue to grow during life? Why are ſome plants and animals only the ſhort-lived beings of a day, whilſt others ſubſiſt more than an hundred years*? and

 why

* The *Creeping Ceres* bloſſoms at night and dies in the morning, and *the* Ephemeris Fly, *although two or three years in hatching under water, when brought forth, ſcarcely*

why are the ſenſations in ſome animals ſo acute as almoſt to occaſion pain, and in others ſo dull and torpid as ſcarcely to produce feeling equal to that of the unconſcious *ſenſitive plant?*

The utility and extent of Midwifery may ſtill be further ſhewn, by applying it to a knowledge of particular diſeaſes. If the *pathology* of thoſe maladies derived from the parent are ever to be more perfectly underſtood, probably that might be expected from the aſſiſtance of this art. Thoſe things premiſed, it may be proper to enquire, whether long protracted *chronical diſeaſes* do not at laſt become *hereditary*; and alſo, whether the placentary veſſels are adapted, by their peculiar ſtructure, to abſorb from the parent, the matter or efficient cauſe of one diſeaſe, and to exclude that of another; as may be obſerved, by analogy, in the nutrition of plants, which, by an inherent, or elective power, imbibe juices of very different qualities from the ſame ſoil; and what is ſtill more remarkable, the flower, fruit and bark of the ſame ſhrub, all vary in ſmell, ſtrength and taſte, according as they are influenced by the veſſels of thoſe particular parts.

In ſome of thoſe diſeaſes manifeſtly hereditary, as the *ſcrophula*, *gout*, and *lues venerea*; might not the *materies morbi* be

ſurvives a ſingle day. The Foreſt Oak *is ſaid to grow one hundred years, and the* Stag *is*

be ſubdued and totally extinguiſhed in the human embryo, by enjoining the mother a medicated regimen during the time of pregnancy? From ſome late obſervations, I have reaſon to believe it may be effected; and this circumſtance deſerves the greater attention, as the morbid matter in a more advanced age, might be ſo intimately mixed and diffeminated through the ſyſtem, as never to be exterminated and totally taken away; though at particular periods of life, ſuch diſeaſes may either lie dormant or appear with leſs violence. Hence the propriety of the following lines:

"*The young diſeaſe that muſt ſubdue at length,*
"*Grows with our growth, and ſtrengthens with our ſtrength.*"

POPE.

Such therefore is the miſerable ſtate of man, that he not only inherits ſome diſeaſes before he ſees the light or enjoys the privilege of breathing; but is alſo afterwards ſubject to many more, which alternately afflict him from the cradle to the grave.

The application of variolous matter to pregnant women, who have had the ſmall pox, would determine whether the virus was of ſuch a nature as to be abſorbed by the veſſels of the fœtus; and if ſo, whether this new mode of practice would not afterwards effectually ſecure the infant from the in-

fluence

fluence of that deſtructive diſeaſe. Should ſuch a method be adopted, it would be the moſt proper in the laſt months of geſtation, where the veſtiges of the diſeaſe would be ſeen on the ſkin of the new-born infant; or ſhould no ſuch marks appear; the event of the experiment might be certainly known, by inoculating the child and attending to the ſubſequent effects. A caſe mentioned in the Philoſophical Tranſactions, where the variolous matter applied to a child which had previouſly received the infection in utero, was not ſufficient to reproduce the diſeaſe, ſuggeſted to me the propriety of this practice; as well as a ſhort but ingenious eſſay on the ſubject by a gentleman of Glaſgow, which accidentally fell into my hands. Hence alſo it might be neceſſary to enquire, whether thoſe adults who are ſaid totally to eſcape the ſmall pox, have not thus been previouſly affected with it in the time of uterine geſtation.

It does not appear that this experiment would be attended with any degree of danger; for the mother's habit would not be affected by it; and it has repeatedly been obſerved, that infants eſcape the danger of this diſeaſe in proportion to their tender age; which probably might have introduced the practice of inoculating them at the breaſt, when only three weeks or a month old: However, gentlemen, I deſire it may be remembered, that this hint is rather propoſed for the conſideration

ſideration of the curious, than as a circumſtance as yet ſufficiently ſupported by practical facts.

Strange things have been imputed to the *Mother's Imagination* in marking or mutilating her child in the womb. This extraordinary opinion is as ancient as the book of Geneſis, and has even been transferred from the human ſpecies to the brute creation; for, we are told in the thirtieth chapter, that ſtreaked rods were placed before the breeding cattle, to make the young ones ſpeckled. However unphiloſophical and abſurd ſuch ideas may appear, they have been adopted by many, even in the preſent enlightened age, who too readily take things for granted on tradition and hearſay, inſtead of truſting to the teſtimony of their ſenſes. Thus vulgar errors, like the diſtempered offspring of which we are ſpeaking, have been propagated and delivered down from one generation to another. The ignorant and ſuperſtitious, in particular, refuſe to be convinced, and are offended with ſuch as diſturb their extravagant belief; but are wonderfully entertained by thoſe who feed their ſickly fancies, with ſtrange examples of marks, monſters, and mulitated forms; to whom they liſten with as much avidity, as *Shakeſpear's blackſmith* "with open mouth ſwallowing a "tailor's news."

It is much to be regretted that the generality of women are inclined to an opinion ſo unfavourable for themſelves;

which not only tends to disturb their repose and fill their minds with horror and dreadful apprehensions, but is also contrary to experience, sound reason, and the state of the animal œconomy. To suppose that Nature in the production of the fœtus should thus transgress her own laws, and be put out of her due and regular course by trifling accidental causes, is not only cruelty and disaffection to themselves, but an affront to the wisdom and goodness of the Creator. A woman's mind, from the delicacy of her bodily frame, and the prevalence of her passions, is liable to so many excesses and inordinate motions that had such causes been productive of marks or monsters, they would certainly have been much more frequent. Besides, it ought to be remarked, that conception does not depend upon the will of the mother, but results from the nature and disposition of the several animal functions, and therefore happens whether her imagination be for or against it: Surely then it would be extremely irrational to suppose its influence over the fœtus greater than that which prevailed over her own body.

By the most accurate examination of the parts connecting the child to the womb, there does not appear any communication of vessels between the one and the other; for the umbilical vein and arteries proceeding from the first, terminate at the exterior surface of the placenta; and those vessels which

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are derived from the uterus, without any communication with the former, enter the cellular ſubſtance of the ſame placentary maſs, and go no further.

Beſides, no anatomiſt has ever yet been able to demonſtrate the exiſtence of nerves in the umbilical cord, which is the medium of all intercourſe between the mother and child. How then can the imagination of the firſt operate or extend its influence to the laſt, without the mediation of nerves, which are the organs of all ſenſation? With as much reaſon it might be ſuppoſed, that an impreſſion made on the mother might be transferred to the infant ſucking at her breaſt. It has indeed been aſſerted with reaſon, that ſeveral parts of the body are endowed with ſenſibility, where not the leaſt veſtige of nerves is to be ſeen; but granting that the funis was nervous; the placentary veſſels continued from it, are not ſuppoſed at firſt to adhere to the uterus, when the tender ſtamina of the embryo would be moſt ſuſceptible of violence or change; and even when an attachment commences, that is only effected by a ſuperficial contiguity of parts, and not by any continuation of veſſels from the one to the other, as already obſerved. In a word; the navel-ſtring, or umbilical cord, is plainly intended for the purpoſes of circulation, and not of ſenſation; and as it ſprings from the fœtus, moſt

probably

probably is deſtitute of nerves, leaſt the Infant ſhould have ſuffered pain when this part is divided immediately after its birth.

Thus may anatomical knowledge clearly convince us, that the fœtus in utero has a body perfectly diſtinct from that of the mother, and is not at all affected by her ſenſations, which are entirely confined to her own ſyſtem; agreeable to this ſuppoſition, many inſtances might be brought to prove that the one ſleeps whilſt the other is awake; the one is affected with pain, when the other is at eaſe; and that each has a circulation of blood peculiar to itſelf. It therefore appears, that the imagination of the mother can have no power to alter the ſtamina of the fœtus, or to change the mode of its exiſtence, either by giving it ſupernumerary parts, or taking away thoſe already formed. This reaſoning is ſtill further confirmed by the following circumſtances; firſt, becauſe infants have often had marks, where there was no preceding diſturbance in the mother's imagination; and ſecondly, becauſe her imagination has often been violently affected where the child was free from any ſuch marks or deformities: For inſtance, hiſtory informs us that *Rizzio*, ſecretary to *Mary* Queen of Scots, was ſtabbed in her preſence whilſt ſhe was pregnant; but notwithſtanding the horror impreſſed upon her mind by ſuch a ſight, ſhe was delivered of a child, afterwards *James* the

firſt,

firſt, who had not the leaſt appearance of blood-coloured marks or ſtigmata.

But ſeeing that marks and monſters do ſometimes happen, how are they to be accounted for, or from what cauſes do they ariſe? Perhaps from ſome accidental violence, diſturbing the tender embryo, as yet in a gelatinous ſtate; or elſe from a diſeaſed ſtamina, where its very rudiments are monſtrous and deformed. Sudden frights are obſerved to occaſion abortion, by what *Hoffman* calls convulſio uteri; and it is probable that the ſame preternatural preſſure, by producing a conſtriction of the uterus, may forcibly act on the embryo, and by obſtructing the juices in its legs or arms, occaſion thoſe parts to wither and drop off for want of circulation.

Eller ſuppoſes, that fleſh-marks in the child ariſe from a fault in the poſition of the womb, which, by preſſing on the ſurface of the ſkin and obſtructing the arteries, may throw their blood upon the lymphatic branches, and convert them into blood veſſels; which being ſpread on the ſurface of the ſkin, will tinge it with a red colour. We are ſeriouſly told, that marks reſembling red currants, cherries, &c. become more red and vivid when thoſe fruits are ripe; to which, if any reply is neceſſary, it might be anſwered; that the paleneſs or florid colour of the ſkin depends on the quantity of

blood paſſing through the capillary veſſels on its ſurface; the laſt of which will therefore always be greateſt in warm weather, when ſuch fruits are in ſeaſon. But if the imagination has power to produce colours, as ſome would weakly ſuggeſt, why ſhould not children be marked with grapes, or green gooſeberries, as well as with cherries or red currants, ſince it may be preſumed the mother may as often have longings for the one as the other?

Before we quit this ſubject, it may be neceſſary to remark, that monſtrous fœtuſſes are alſo common in brute animals; although our ſelfiſhneſs and pride will not allow them the exerciſe of thoſe rational faculties which are ſuppoſed the cauſe of ſuch deformities in the human ſpecies. To conclude; a *luſus naturæ*, or preternatural conformation of parts, is alſo frequently known to prevail in plants as well as animals; which ſhews, that ſuch uncommon appearances in the laſt ariſe from mere corporeal agency, or the perverted laws of motion, and have nothing to do with imagination or the operations of the mind.

As by chemiſtry the texture of natural bodies is unfolded, and their ſeveral qualities diſcloſed; ſo the elements of human bodies, as well as the diſeaſes to which they are ſubject, are illuſtrated and explained by the Science of Midwifery; for

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it brings us to an intimate acquaintance with the ſtate and condition of man, even from the firſt ſtamp of his exiſtence; and therefore, if we may ſay with a celebrated poet, that

"*The proper ſtudy of mankind is man,*" and that

"*All our knowledge is ourſelves to know;*"

then ſurely, this muſt be deemed true knowledge.

It will not be improper to conclude this part of our ſubject, by ſubjoining the following queries; moſt of which belong to the Obſtetric Science, and therefore will hereafter be duly conſidered.

An locus certus conceptui propiùs aſſignari queat?

An vitium figuræ contrahatur in utero, propter materiem peccantem?

An, ab origine, monſtra ſunt, vel cauſis accidentalibus ſic fiunt; & quænam ſunt eorum cauſæ?

An, et qua ratione ſeminis poteſtas parentum, affectiones ingenitas, mores, robur, formæ ſimilitudinem, ſtaturam et reliquos characteres una traducat?

An, et quomodo ſemen maris, fœminam virtualiter contineat;

et ſemen fœminæ virtualiter marem? & quænam eſt cauſa ſexuum differentiæ?

An fœtus omnia viſcera, vaſa, artus ſimul habeat; an verò plane mutet formam, primò piſciculo, deindè amphibio, poſteà reſpiranti proximam?

Quibus experimentis precipuè indagari valeant fœcunditas et ſterilitas mulierum?

An ſuperfœtatio ſieri poteſt?

An alatur fœtus per os, an per umbilicum, an per utrumque?

Quid de legitimo tempore partûs humani ſtatuendum ſit?

An variolarum cauſa nobis ingeneretur a ſanguine materno?

In quibus morbis mulierum concubitus prodeſt?

We come now to trace the progreſs of Midwifery, and to remark the advances which it made among the ancients and moderns, 'till it arrived at its preſent ſtate. It is not however my deſign to give an hiſtorical account of the ſeveral authors on this ſubject, in exact chronological order; for as their

their writings are almoſt innumerable, ſuch an undertaking would not come within the narrow limits of an INTRODUCTORY LECTURE: I ſhall therefore only mention thoſe of the greateſt note, and lay before you a general view of their opinions and practice.

In the firſt ages, women in labour were attended by their own ſex, who gave their aſſiſtance without method, being rather directed by neceſſity than ſkill or choice; hence, the progreſs and improvement of this art muſt have been exceedingly ſlow. In difficult caſes, compaſſion naturally inclined them to enquire into the cauſe of ſuch difficulties, by touching the patient in the time of her labour-pains; and in this manner they began to improve their ſlender knowledge, and made ſome obſervations that were of ſervice in their future practice. For example, they could not help remarking, that in moſt labours where the infant's head preſented, the patient was ſpeedily delivered by the ſimple effect of the labour-pains; therefore they concluded that this was natural.

On the contrary, when the arm, or any other part but the head preſented, the pains were inſufficient to effect the birth; and as they were ignorant of the proper methods of aſſiſting, the mother died undelivered; conſequently, they had great reaſon to ſuppoſe that all ſuch caſes were dangerous and pre-

ternatural. Hence ſprung the diviſion of labours, which they diſtinguiſhed into natural and preternatural.

Midwifery at this time being chiefly exerciſed by women, it frequently fell into abuſe. To remedy this evil, we are told that a law was made at *Athens*, excluding them from practice, and appointing men only, to take upon them the province of delivering women, and directing medicines for the ſeveral diſeaſes to which they were ſubject; but ſuch was the effect of cuſtom, that the legiſlative power was inceſſantly importuned, and at laſt prevailed upon to revoke this edict, and to reſtore women to their former privilege of practiſing this art.

I think there does not appear ſufficient reaſon for ſetting female practitioners aſide; provided that they are properly inſtructed, and not only able to diſtinguiſh when there is danger, but conſcientiouſly endeavour to avoid it, by ſending for further aſſiſtance in time, which is too frequently neglected. This is ſo far from a diſparagement to them, that it makes a neceſſary part of their duty, for which they ought to be commended; and therefore, when men of the profeſſion are called in, they ſhould not brow-beat and ſuggeſt hints to their diſadvantage, but treat them with becoming civility, and, if poſſible, protect them from blame; as

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an injury to their reputation would be followed by the loſs of buſineſs, and of bread.

Cleopatra and *Aſpaſia* were the two female proficients in this art, who by their practice and writings were moſt diſtinguiſhed and made known to poſterity; an account of the firſt may be found in the *Harmonia Gynæciorum*, and the laſt is particularly mentioned by *Ætius*, who has tranſcribed ſeveral chapters from her works, relative to the management and delivery of women.

The progreſs and improvement of Midwifery may be dated from the time of *Hippocrates*, who practiſed in Greece four hundred and ſixty years before the birth of Chriſt. He wrote ſeveral books profeſſedly on the diſeaſes of women under the following titles: *de Morbis mulierum*; *de Superfœtatione*; *de Fœtus in utero mortui extractione*; *de Virginibus, et de Sterilibus*. Some of theſe tracts are accounted ſpurious, and the rather, as it was five hundred years after his death, before his works were collected into a body by *Artimidorus* and *Diaſcorides*, two phyſicians of Alexandria, in which ſome contradictions are to be found.

Erotion took great pains to point out the true works of *Hippocrates*; but makes no mention of the book *de Virginibus*,

nibus, nor that *de Natura Muliebri*. *Mercurialis* alſo has placed the books *de Natura Muliebri*, *de Morbis Mulierum*, and that *de Sterilibus*, in the third claſs, as writings in which *Hippocrates* had no ſhare.

The medicines recommended by this author are odd and indelicate, and his theory extremely erroneous. For inſtance, in the hyſteric paſſion, he aſſerts that the womb changes its place, and that it riſes to the ſtomach and heart; ſo that one would be apt to conclude, he had never ſeen the ſituation of the uterus, in the diſſection of a human body; otherwiſe, he could not have omitted to remark its connection to the ſurrounding parts. His doctrine of conception was adopted by authors of the firſt rank, and adhered to, even till the laſt century; but his method of practice deſerves no attention, for it appears by a ſurvey of his works, as well as thoſe of the antients in general, how imperfectly the Obſtetric Art was known; ſo that if we compare *Hippocrates* diſcourſing on this ſubject, with the ſame *Hippocrates* ſpeaking on the nature of diſeaſes, pointing out their diſtinctions, and prognoſticating their ſeveral events, *nil fuit unquam tam diſpar ſibi*; in the firſt, he is a ſtranger to the ſtructure and functions of the parts appropriated to generation and parturition; but in the laſt, is wonderfully ſagacious, accurate and juſt; and therefore, as a nice obſerver of Nature and a faithful recorder

of

of her operations, he has ſtood the teſt of all ages, and juſtly continues admired and eſteemed to the preſent time.

Ariſtotle alſo wrote on the ſubject of Midwifery, particularly on the generation of animals; and though his rules for practice are few and ſcarcely to be regarded, yet in his ſeventh book on this ſubject are to be found ſeveral obſervations worthy of remark, under the following heads: Of the ſigns of puberty in men and women; of the menſes; the ſigns of conception, and the ſymptoms which happen from thence to the time of labour; alſo of the ſituation of the fœtus in utero, the child's birth; and of the placenta and funis. He obſerves that the conſtitution, both of the male and female, undergoes a conſiderable change at the time of puberty, and that women who have not the periodical flux are generally barren, although ſome have been known to conceive, who never had the diſcharge at all. He aſſerts, that women ſuffer more than quadrupeds in the time of parturition; that the fœtus is nouriſhed by the funis, and naturally preſents with the head; that the period of geſtation is various in the human ſpecies, but that animals bring forth at a ſtated time, and with their bones perfectly formed; though it is found to be otherwiſe, in that part of the infant's head called the fontanel. But the moſt extraordinary of all his poſitions is, that blind and lame children, are generated of blind and lame parents; from which

it is plain he had adopted the doctrine of *Hippocrates*, who aſſerted, that the ſemen is a combination of organical particles, derived from the ſeveral parts of the body; and that, being aſſociated, they form a *genitura* or the rudiments of the embryo.

Cornelius Celſus, who might juſtly be called The Latin Hippocrates, is the next author of note; he lived in the reign of *Tiberius*, A. D. 35, and wrote a treatiſe on medicine in the Latin tongue, much admired for its elegance of ſtyle; but whether he was really a phyſician, or a man of uncommon underſtanding, whoſe natural genius led him to the ſtudy of that ſcience, is not certainly known; for he wrote on war and agriculture as well as phyſic. In his ſeventh book he treats of the diſeaſes of women, and the method of extracting a dead fœtus; but what he lays down is chiefly borrowed from the Greek phyſicians, particularly *Hippocrates*; ſo that he is rather conſulted as the ſtandard of elegance and true purity of ſtyle, than for any thing remarkably inſtructive on this ſubject.

Galen of Pergamus, a celebrated Greek phyſician, was born A. D. 132, and lived in the reign of *Adrian*, about ſix hundred years after the time of Hippocrates; he travailed through ſeveral provinces of the Roman empire, and afterwards reſided at Alexandria in Egypt, which was then the moſt celebrated ſchool of medicine in the world; but at laſt returned to his

his native country, where he died. He appears to have been a man of great learning, and of a ſubtle diſcerning genius; but he was aſſuming and vain-glorious, arrogating to himſelf the higheſt honours, and at the ſame time attempting to depreciate and leſſen the authority of other phyſicians. He is allowed to be the beſt commentator on the works of *Hippocrates*, though in his relation of things he is circumlocutary and diffuſe. He wrote ſeveral books on the ſubject of Midwifery; namely, one *de Semine*; *de Formatione Fœtus*; *et de Uteri diſſectione*, where he lays claim to the diſcovery of thoſe tubes belonging to it, which were afterwards ſaid to be found out by *Fallopius*.

To enumerate the ſeveral ancient authors who have written on the preſent ſubject, would be tedious and unneceſſary; and therefore, from *Galen* down to the time of *Paræus*, it will be ſufficient only to mention thoſe of principal note.

Ætius, who lived A. D. 380, left a ſyſtem of phyſic in Greek, which was tranſlated into Latin by *Cornarius*, and printed at Baſil under the title of "*Contracta ex Veteribus Medicina*," the laſt book of which treats fully and judiciouſly on the diſeaſes of women. He deſcribes the ſituation, magnitude and figure of the uterus, and gives a circumſtantial account of difficult births; he likewiſe takes notice, that deli-

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very may be retarded by the too early rupture, or by the preternatural rigidity of the membranes containing the child, and directs what is neceſſary to be done on thoſe occaſions. His cautions againſt violence, when the os uteri is cloſed by inflammation, are rational and well adapted to the diſpoſition of the parts; in ſhort, though he is little more than a compiler from *Galen*, *Soranus*, and others, he ſeems an author of exceeding merit and candour, always naming the originals from whence his quotations are taken, which in general are judiciouſly choſen and well applied.

This was the ſtate of the *Obſtetric Art* among the Greeks and Romans; but when the weſtern empire was invaded and ravaged by the Goths and Vandals, who were a barbarous people and enemies to the polite arts; the ſeveral ſciences, for want of patronage, began to languiſh and at laſt were neglected and forgot. The fate of learning in the eaſt was much the ſame ſoon after; for the *Saracens* ſubdued Egypt, and deſtroyed the famous library at Alexandria, which was then the moſt celebrated ſchool of medicine in the world; the books being diſperſed by the Calif's order, and burnt at the ſeveral Bagnios. But in proportion as learning declined among the Greeks, it began to flouriſh among the Arabians, who extended their empire over Aſia, Africa and Europe, under the Calif *Almamon Abdalla*, who reigned A. D. 813, and

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cauſed the Greek authors to be tranſlated into the Syriac and Arabic tongues; for ſeveral of them were fortunately preſerved, although the public library was deſtroyed.

Avicenna, a Mahometan phyſician, was born in Perſia, and lived A. D. 1000. He wrote a book called *Canon Medicinæ*, divided into five ſections; in the third he ſpeaks of conception, pregnancy and delivery, and alſo of the diſorders peculiar to women. Though the forceps is ſuppoſed a modern invention, he mentions that inſtrument, and ſuch as was manifeſtly intended to ſave the child.

Albucaſis, an Arabian, is ſuppoſed to have lived A. D. 1085, and likewiſe treats on the diſeaſes of women: He is remarkable for delineating and deſcribing the ſeveral inſtruments then in uſe; and among the reſt gives a figure of the forceps, and alſo of an inſtrument called Impellens.

From this period to the year 1200, the Europeans, by their commerce with the Saracens, became acquainted with the ſciences; hence, the art of phyſic was cultivated; and at laſt gave riſe to two of the moſt ancient colleges of medicine in Europe; namely, thoſe of *Salermo* and *Montpelier*, where the doctrines of the Arabian phyſicians were principally taught, till the taking of *Conſtantinople* by the Turks, in the year

1453; for at this time the ſeveral learned men fled from thence, and took refuge in different parts of Europe, particularly in Italy and France, where they carried the ſciences; and as learning revived, men of genius now began to ſtudy *Hippocrates* and the other Greek phyſicians; and the works of *Avicenna* and *Rhaſes*, whoſe authorities had long prevailed, were now juſtly rejected. Thus was the Grecian art of medicine reſtored, and by degrees a ſolid ſyſtem of phyſic eſtabliſhed, by which the cauſes and cure of diſeaſes were more rationally conſidered, and more accurately diſtinguiſhed.

From this period down to the time of *Paræus*, the great promoter of *Obſtetric knowledge*, the general practice of the ancients was as follows: If the infant did not preſent naturally, they ſhook the woman and altered her poſition; a practice ſo irrational, that it could anſwer no purpoſe but that of tormenting the patient. The operator alſo attempted to bring the head to a right preſentation, and, if he failed, he then endeavoured to deliver by the feet; if none of theſe methods ſucceeded, it was treated as a dead child, and extracted with crotchets; but if it was too large to paſs whole, they diſmembered and extracted it piece-meal.

In the year 1575, *Paræus*, a French author, in his twenty-fourth book, where he treats on generation and the delivery

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of women, entirely rejecting thoſe irrational proceedings of the ancients, in all preternatural caſes, expreſsly directs the child to be turned and delivered by the feet, which was a noble endeavour towards the advancement of the art; for by this judicious method many women were ſaved, who otherwiſe muſt have died undelivered.

From this time the improvements in Midwifery were many and great, both by manual operation and in the invention of new inſtruments. *Guillemeau*, who was a ſcholar of *Parès*, alſo wrote expreſsly on the ſame ſubject, and improves much on the rules laid down by his predeceſſor: In profuſe floodings, he orders the membranes to be broke and the patient to be ſpeedily delivered; he alſo takes notice of the ruptured uterus, ſome inſtances of which had fallen under his own obſervation.

From the time of *Guillemeau*, till that of *Mauriceau* (being upwards of half a century) ſeveral uſeful tracts were publiſhed. *Severinus* publiſhed a book on pregnancy and delivery; and in the year 1628, *G. Nymmanus* printed his diſſertation *de vita Fœtus in utero*; wherein he proves that the infant may ſurvive a conſiderable time after the mother's death; and therefore admoniſhes magiſtrates, and thoſe who have the direction of public affairs, to permit the opening of ſuch women as die undelivered, in order to preſerve the child.

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The works of *Sennertus*, a celebrated profeſſor of phyſic at Wittemberg, were publiſhed in the year 1640; in which is to be found a valuable practical treatiſe on the diſeaſes of women and children; where the deſcription of the ſymptoms appears accurate, and the intention of cure is laid down with clearneſs and profound ſkill.

A. D. 1668, *Mauriceau*, after much experience at the Hotel Dieu, publiſhed a book on Midwifery, which came nearer to a complete ſyſtem, in what regards the practice, than any thing which went before it; But his doctrine of conception is falſe and erroneous, and his theory vague and irrational; though his practical aphoriſms are judicious and excellently deduced.

Various now were the authors on Midwifery; for *Dionis*, *Peu*, and *Portal* publiſhed their ſeveral works; and not long after, *Saviard*, who had practiſed at the Hotel Dieu, alſo publiſhed ſeveral obſervations on the diſeaſes of women, and the method of aſſiſting in difficult labours. *Daventer*, a Dutch phyſician, printed his book on the art of Midwifery in the year 1701, and became eminent by remarking, that the moſt common cauſe of difficult labours ariſes from an oblique ſituation of the uterus; the fallacy of which opinion will be ſhewn in the ſubſequent lectures. Beſides, though this paſſed for a diſ-

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covery of Daventer's, it was obſerved by *De Graaf* long before; *Winckler* likewiſe takes notice of the ſame thing, and ſays it was obſerved of old. Thoſe points of doctrines for which *Daventer* moſt deſerves commendation, are to be found in his obſervations on touching; from which many uſeful indications may be taken concerning the event of the labour.

From this time ſeveral detached pieces were publiſhed, tho' nothing very conſiderable, till *Lamotte*'s book appeared; in which are to be found many judicious obſervations, candidly and circumſtantially laid down, and therefore worthy of remark; but this author, though a modern, probably knew not the uſe of the *Forceps*; for in laborious caſes, where the difficulty is great, he directs the child to be turned and brought by the feet.

About the year 1721, ſeveral curious and uncommon caſes were publiſhed by the celebrated *Ruyſch*, and alſo his tract *de Muſculo in fundo uteri obſervato*. Soon after, *Vaterus* printed his *diſſertatio pathologica de utero gravido*; and *Puzos*, in the memoirs of the Royal Academy of Surgery at Paris, attempts to ſhew a more ſafe and gentle method of proceeding in floodings than had before been practiſed on ſuch occaſions; which will hereafter be duly conſidered.

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In the year 1743, *Noortwyk*, a Dutch phyſician, publiſhed at Leiden his accurate anatomical hiſtory of the gravid uterus, which merits the peruſal of all thoſe who purpoſe to ſtudy Midwifery. *Levret*, a celebrated profeſſor of Midwifery at Paris, has alſo from time to time publiſhed three volumes on the ſubject of Midwifery: In the firſt he treats on that art, as demonſtrated on mechanical principles; the ſecond comprehends his obſervations, with the deſcription and figure of the different forceps in uſe. The third volume treats on the polypus, and deſcribes the figure of his inſtruments for tying polypoſe tumours of the uterus, in a manner more ſafe and eaſy than hitherto known.

Rodererus, profeſſor of Midwifery in the univerſity of Gottingen, in the year 1759 printed the ſecond edition of his *Elementa Artis Obſtetricariæ*, in which the practice of Midwifery is conciſely laid down; but as a public teacher, whoſe doctrine may have conſiderable influence on thoſe who attended his lectures, it is much to be regretted, that he ſhews an uncommon propenſity to the uſe of inſtruments, even thoſe of the deſtructive kind. He alſo publiſhed his anatomical tables of the gravid uterus, where ſome of the parts are finely delineated; but, it is preſumed, thoſe intended for ſpeedy publication by Dr. *Hunter* will far exceed them, both in the number of plates, and elegance of their execution.

About

About the ſame time *H. Crantz*, profeſſor of Midwifery at Vienna, printed a tract *de rupto utero in tempore partus*, and alſo his *diſſertatio de re inſtrumentaria*, in which he gives a full hiſtorical account of the different inſtruments uſed in Midwifery. He aſſerts, that the uſe of the crotchet is never required, although they have often been applied; and thinks it ought to be deemed homicide, where the head of a living child is opened, even though the life of the mother ſhould be in danger; and therefore cenſures *Roderer-rus*, with uncommon ſeverity, for inculcating ſuch practice. The author ſhews a humane attention to the life of the infant; and it would have been not leſs commendable, had he alſo been more merciful to the reputation of his brother profeſſor.

This naturally leads us to conſider the uſe and abuſe of Inſtruments, which the paſſion for novelty has multiplied to an extravagant number. Some of them, indeed, particularly the *Forceps*, are found to be ſafe and effectual, in preſerving both the life of the mother and child; but wherever the delivery can be brought about by the ſimple force of the labour-pains, all inſtruments are unneceſſary and improper; for it would be injudicious and abſurd to ſubſtitute art, for the performance of that which might be much better and more ſafely accompliſhed by the powers of nature only.

Thoſe

Thoſe who are not ſufficiently converſant in practice, from motives of fear, which always magnify the danger and ſuggeſt the worſt, are often led to a more precipitate application of inſtruments than is neceſſary, or conſiſtent with the patient's ſafety. On the other hand, there are ſome who exclaim againſt all inſtruments whatever, pretending that they are dangerous and unneceſſary; but it may with reaſon be aſked, whether this does not ariſe from artifice in ſuch declaimers, and an endeavour to recommend themſelves to the good opinion of timorous and weak-minded women; who are alarmed at the very name of an inſtrument, and had almoſt rather die, than call in the aſſiſtance of thoſe who are ſaid to make uſe of them? for all ſuch as have candour and ſkill muſt allow, that inſtruments, particularly the *Forceps*, are ſometimes ſo abſolutely neceſſary towards the preſervation of both the mother and child, that he who either wants dexterity or reſolution to apply them, would be deficient in the duties of his office.

I did intend, in this place to have been more particular on the uſe of inſtruments; but as it is firſt of all neceſſary to know the ſtructure of the parts concerned in parturition, before we can have a juſt idea of their proper uſe, I ſhall defer what is further to be ſaid on the ſubject, till we come to the Lectures on laborious caſes; where the different Inſtruments

ments will be examined, by taking a comparative view of their ſeveral advantages and defects.

Moubray, *Chapman*, and *Ould*; *Giffard*, *Smellie*, *Burton* and *Pugh*, are the principal Engliſh writers on the ſubject of Midwifery. Beſides a due attention to many of the authors already mentioned, I ſhall hereafter occaſionally remark ſuch new obſervations and capital improvements, as have been laid down from time to time by the moſt eminent *modern Profeſſors* of Midwifery in different parts of Europe.

Whoever teaches a ſcience ought to lay before thoſe intending to ſtudy it, a clear and comprehenſive view of all its branches, and alſo the means moſt conducive to a perfect knowledge of the whole. Midwifery, reſpecting its operative part, may be called an art; but as it comprehends the nature and treatment of diſeaſes, it ought alſo to be conſidered as a ſcience. It is divided into Theory and Practice: Theory conſiſts in a competent knowledge of the anatomy and phyſiology of the human body, particularly in what relates to generation and the menſtrual flux; the œconomy of the gravid uterus; the nature of parturition; and the doctrine of the ſeveral diſeaſes incident to women and children. The method of aſſiſting with dexterity and ſkill in laborious and preternatural labours; and of acting with judgment in all caſes of danger or

difficulty, conſtitutes the practical part. Without a previous and diſtinct knowledge of all theſe, no one deſerves the name of an *Accoucheur*; for if he ventures to give advice or aſſiſtance, which is not founded on rational theory and the eſtabliſhed rules of his profeſſion, he will act like a bungling mechanic, who attempts to repair a complex machine, without being acquainted with the ſeveral wheels and ſprings which compoſe it, or the principles upon which its motion depends.

From a regard to the ſafety of women, and the public good, as well as the credit of the profeſſion, it is much to be wiſhed, that none were permitted to practiſe Midwifery, till they had given ſufficient teſtimony of their ſkill, by *due Examination* before gentlemen appointed, by authority, for that purpoſe, as is uſual in other branches of phyſic and ſurgery. We ſhould not then find the town and country overrun with ignorant and half-inſtructed pretenders of both ſexes; who impoſe on the credulous, and ſupply their want of knowledge by arrogance and vain-boaſting, or by a ſlaviſh ſubmiſſion to the obſtinacy or avarice of nurſes and old women.

Whatever knowledge a man may poſſeſs, or however reſpectable he may appear in his profeſſion, it is right he ſhould regulate his conduct by the rules of true policy and a prudent attention to his own intereſt; but this is not to be done by a timorous

timorous and time-ſerving deportment; not by chiming in with the prejudice of the vulgar; by being in league with nurſes or ladies' women, or paying compliments to the wealthy and great at the expence of truth; not by impoſing on the ignorant with pompous and pedantic jargon, or aſtoniſhing them with miraculous and pretended cures; but by principles directly oppoſed to all theſe. If ſuch artifices degrade the loweſt of mankind, ſurely they are unworthy of men who profeſs a liberal ſcience; whom no Intereſt ſhould prompt to thoſe baſe and ignoble proceedings, even could they be ſuppoſed to eſcape detection and contempt.

The ſafety of the patient more immediately depends on the operator's ſkill in this, than any other branch of phyſic or ſurgery; and therefore it is the indiſpenſable duty of every one who engages in it, to render himſelf duly qualified. He is not to ſuppoſe, that a courſe or two of lectures is ſufficient for this purpoſe, and that he may then ſet out in practice, as if women had neither life nor health which might ſuffer by his want of judgment; but on the contrary, after obtaining a rational theory, he ſhould then have *frequent opportunities of extenſive practice*, without which he will never acquire dexterity of hand, or that reſolution and ſteadineſs ſo neceſſary in caſes of danger or difficulty. Inſtead of this, his behaviour will be timorous and confuſed; and no one can reaſonably

ſonably expect to engage the confidence of others, who thus apparently diſtruſts himſelf: ſuch conduct will always ſubject him to cenſure, and where another of the profeſſion is ſent for, and performs what he is unable to do himſelf, it will injure his reputation, and hinder his advancement in life.

The force of habit is ſo remarkable in the difficult operations of Midwifery, that it may be truly ſaid, it is practice which makes perfect; for the hand gains ſtrength and dexterity in proportion to its uſe; and the mind being familiar with danger, becomes more circumſpect and deliberate than before; whereas, fear enervates the hand, deſtroys recollection, and puts the thoughts into confuſion.

The privilege of attending a public Lying-in Hoſpital has long been wanting in this great metropolis, to perfect ſtudents in the true practical knowledge of Midwifery; and it affords me ſome pleaſure, that I have been able to obtain this ſingular advantage for my pupils at the WESTMINSTER NEW LYING-IN HOSPITAL; where near *twelve hundred* women have already been delivered under my direction; and where an additional number of patients will now be admitted, by order of the Governors, in conſequence of many new ſubſcribers, benefactions, and a ſecond legacy received in the year 1773.

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The utility of permitting ſtudents, when duly qualified and under proper regulations, to attend *Public Hoſpitals*, is ſo obvious, that this cuſtom was adopted in France many years ago, and is now allowed in other parts of Europe. Such privileges manifeſtly tend to the improvement of Midwifery, and therefore will be productive of univerſal good, by extending the benefits of that art to different parts of the kingdom, where thoſe ſtudents may hereafter chance to reſide; and who, from ſuch previous advantages, will be better qualified in dangerous caſes to give their aſſiſtance with judgment and dexterity. Hence, many women, the rich as well as the poor, will be preſerved, who otherwiſe might have fallen victims to the ignorance or inſufficiency of unſkilful practitioners.

It was owing to the wiſe and early inſtitution of Lying-in Hoſpitals in Paris, and to the peculiar advantages and improvements ariſing from them, that ſtudents in Midwifery formerly reſorted thither from other nations; but though this Art is no where more rationally now taught, or more judiciouſly practiſed than in London; it muſt be confeſſed that we were at firſt indebted to the French for many of its moſt capital improvements.

Nothing will more redound to the good of the community, than a humane attention to the health and well-being of the

induſtrious poor. A man of this profeſſion by his advice and timely aſſiſtance, often has it in his power to adminiſter relief and comfort to the afflicted, and even to preſerve life itſelf. To thoſe who are bleſſed with ſympathy and benevolence of heart, this will afford the moſt exalted pleaſure; eſpecially where ſuch aſſiſtance is given to women, who are to be conſidered as the weaker ſex, and unable to help each other.

At ſuch times, none, who are worthy to be called men, will deſert even the pooreſt of them; their nerves are ſtrung to the ſame ſenſations of pleaſure and pain as thoſe of the rich; they are formed of the ſame materials, and ordained to the ſame end; And if we look back to our own origin, we ſhall find that once we were in reality parts of themſelves; for we ſprung from their bodies, we were nouriſhed by their blood, and ſhould have periſhed in the very commencement of our being, had we not been ſuſtained, nurſed up, and cheriſhed on their tender boſoms, and protected by their unwearied care.

It would be cruel to rob thoſe of fees who ſuffer from the extremes of poverty, eſpecially in country places, where no Hoſpitals are open for their reception; even a trifle, ſcarcely of benefit to the receiver, would be more than they could ſpare, who earn their daily bread with the ſweat of their brows,

and

and are often unable to ſupply their needy families with the common neceſſaries of life.

The office of an *Accoucheur*, which is attended with great fatigue of body and anxiety of mind, is next to be conſidered. His patience will be put to many ſevere trials by the obſtinacy and caprice of thoſe under his care; by the petulance and ſelf-ſufficiency of ignorant nurſes, or the malignant whiſpers of malice or envy. The life of the patient and his own reputation are depending, and where the event is fatal, he will often meet with undeſerved cenſure and the moſt illiberal treatment; eſpecially among the lower claſs of people, who, being ſwayed by prejudice and vulgar errors, judge without reaſon, and condemn without mercy. This will render the time of his attendance irkſome and tedious; but as long as human nature continues what it is, he muſt expect ſometimes to meet with ſuch unwelcome behaviour. The tongue of ſlander is as much at liberty as the tongue of truth, and ſince it is not in his power to prevent the firſt from proclaiming injurious falſhood; his principal happineſs will be to act in ſuch a manner as not to deſerve it; and being thus conſcious of having done his duty, that will afford him conſolation which nothing can take away.

Beſides theſe qualifications, there are others no leſs neceſſary for the *Accoucheur*, in common with the reſt of his profeſſion.

feſſion. Every one is a judge of his appearance and deportment, though not of his ſkill; and therefore the method of pleaſing, as far as it is ſtrictly conformable to the principles of honour and the rules of good breeding, ought to make no inconſiderable part of his character: Of this the celebrated *Hoffman* was ſo ſenſible, that he publiſhed his *Medicus politicus*; and *Bohnius* alſo wrote *de officio medico*; but what has been laid down on that ſubject by the late Dr. *Gregory*, is preferable to all the reſt; having delivered his ſentiments with becoming freedom, and the zeal of a phyſician honeſtly ſolicitous for the credit of his profeſſion, and the advancement of true medical knowledge.

Whoever practiſes Midwifery, ought to be ſober, patient, and diſcrete; polite and eaſy in his addreſs, and of a modeſt and humane diſpoſition; yet poſſeſſed of ſo much reſolution as not to be alarmed or diſconcerted in caſes of the greateſt danger. At all ſuch times, he ſhould duly conſider and deliberately attend to the ſeveral ſymptoms and circumſtances before him, taking care to proceed with the diſtinct exerciſe of his judgment and reaſon; as a few grains of error, or proper diſcernment, in extreme danger, will ſometimes turn the ſcale for life or death. When the patient's ſituation is truly alarming, and the event is likely to be fatal, her relations and friends ſhould be appriſed of it; and where the operator finds

the

the caſe ſingularly perplexing, the advice of another, eminent for his candour and ſkill, ought to be called in; but, whether in conſultation with thoſe of his profeſſion, or in ſpeaking to others, he ſhould deliver his opinion with clearneſs and prudent caution; avoiding all ſuch pedantic phraſes and myſterious terms of art, as are fitter for conjurors than men of ſcience. He ſhould avail himſelf of no illiberal methods, or attempt to filch a good name at the expence of another's reputation; but in all things, as becomes a man of honour and true benevolence, endeavour to promote the good of ſociety without oſtentation; to ſupport the credit of his profeſſion without pride; and to practiſe condeſcenſion without artifice or meanneſs.

Whatever aſſiſtance women may require in the hour of their diſtreſs, ſhould be regarded with the utmoſt delicacy and a modeſt indifference; their ſituation at that time being only ſuch, as it has ever been from the beginning of the world, and as it will ſtill continue, according to the ſtated laws of Nature. But, to inculcate that which muſt be obvious to all men poſſeſſed of a ſenſe of their duty, or the common principles of humanity, would be an unneceſſary waſte of time. Should one in a thouſand be found of a different character, ſurely it would be inconſiderate and unjuſt to cenſure the whole profeſſion, for the delinquency of ſo ſmall a part. It

is not ſufficient to ſay, that thoſe who practiſe Midwifery have frequent opportunities of acting diſhonourably; for if the means of violating their faith and honour could be proved the cauſe of their doing ſo; all mutual confidence would then totally ceaſe, and mankind in general, as well as they, would of courſe be immoral and baſe; ſince there is no ſtation or department in life which does not daily afford opportunities of becoming vicious.

The Plan which I propoſe to follow, in the enſuing COURSE of LECTURES, is exactly conformable to the order of the particulars laid down in my SYLLABUS, which I have therefore here annexed, as a SPECIMEN of the whole.

It will from thence appear, that I mean, not only to lay before you, the *Theory and Practice of Midwifery*, according to the Doctrines of the moſt eminent *modern Profeſſors of that Art*, but alſo to expatiate largely on the Nature and Treatment of the ſeveral *Diſeaſes incident to Women and Children*, whether acute or chronical, being a branch of medical ſcience highly important, yet of all others the moſt imperfectly known to thoſe who are young in the profeſſion. I ſhall likewiſe lay down ſome general Reflections on what is called *clinical Practice*, and ſhew the great utility and advantage reſulting from it, in the cure of diſeaſes.

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In ſhort, I ſhall pay the utmoſt regard to whatever is moſt uſeful in practice, and endeavour to preſerve ſuch a regular ſucceſſion of circumſtances, as tends to render the following COURSE OF LECTURES as clear and inſtructive as my abilities and the nature of the ſubject will allow: And here I muſt requeſt, that thoſe gentlemen who do me the honour to attend as *Pupils*, will take down their *Notes* with ſuch attention and care, as neither to diſcredit themſelves or miſrepreſent me, eſpecially in *Points of Doctrine*.

The early reading of Books, during their attendance at lectures, does not ſeem eligible; as it often miſleads the ſtudent, and gives a falſe bias to his judgment: It will firſt be requiſite to acquire the *true Principles of the Science*, with a competent ſhare of *practical Knowledge*; and with ſuch guides to direct him he will be leſs liable to error, in adopting many things as right, which ought to have been rejected, as exceptionable.

To conclude; the great importance of the *Science of Midwifery*, whether conſidered in a moral or political view, is ſufficiently evident; and was its utility only confined to the preſervation of women and their offspring; that alone would effectually recommend it to all who are tenderly ſolicitous for their ſafety; but, by a review of its ſeveral advantages, it appears a neceſſary *Branch of Philoſophy* as well as *Phyſic*; the

public

public Adminiſtration of Juſtice, under certain circumſtances, calls for its aſſiſtance; and even the *Cauſe of Religion* itſelf has been promoted by its extenſive influence. It may, therefore, be truly ſaid, that it contributes to the good of ſociety and the general intereſt of mankind, in a manner ſuperior to all other ſciences.

I ſhall now, gentlemen, treſpaſs no longer on your time; as it muſt evidently appear, from what has already been ſaid, that all thoſe who propoſe to ſtudy Midwifery, and to become deſervedly eminent in their profeſſion, ought principally to avail themſelves of *practical Knowledge*, founded on a previous *rational Theory*; and not indolently content themſelves with that ſuperficial and imperfect method of being inſtructed, which has hitherto ſo long prevailed; to the danger of the patient, the diſcredit of the ſcience, and the injury of their own reputation.

THE END.

A

4

SYLLABUS

OF

LECTURES

On the THEORY and PRACTICE of

MIDWIFERY:

INCLUDING

The *Pathology* or general Doctrine of the *acute and chronical Diſeaſes incident to Women and Children*, with their *Treatment and Cure*.

*** For the clearer Demonſtration of Operative Midwifery (whether ſimply by the Hand, or the *Application of Inſtruments*) the ſeveral Methods of aſſiſting both in *laborious* and *preternatural Labours*, will not only be deſcribed according to the moſt approved modern Practice, but likewiſe diſtinctly ſhewn by an *artificial Repreſentation of each difficult Caſe*, upon *Machines of a new Conſtruction*.

The Whole will be illuſtrated by ſuch *Anatomical Preparations* as are applicable to each Lecture; together with various Obſervations, extraordinary Caſes, and neceſſary Cautions; but particularly, by *real Labours*.

By *JOHN LEAKE*, M. D.
Member of the Royal College of Phyſicians, LONDON,
and PHYSICIAN to the
WESTMINSTER LYING-IN HOSPITAL,
At his Houſe in *Craven Street* in the *Strand*.

LONDON, A. D. 1776.

WELLCOME LIBRARY INSTITUTE

PROPOSALS.

THE *Students* who attend theſe Lectures, for their more expeditious and effectual improvement, and with a view to reduce the *Theory of Midwifery to real Practice*, will, when duly qualified, be admitted Pupils at the *Weſtminſter Lying-in Hoſpital*, where they will deliver the patients in their turn, and afterwards receive a *proper Certificate* of their qualification and attendance.

The expence of attending the firſt Courſe - - - 4 Guineas.
And for every future Courſe - - - - - - - - 2 Guineas.

Guinea } Every Gentleman paying *ten Guineas* at the firſt Courſe, ſhall be entitled
upils. } to attend every future Courſe for the ſpace of *one Year*; and alſo be *admitted* a *Pupil at the Hoſpital for Six Months*; where he will have frequent opportunities of *Extenſive Practice*, under Dr. Leake's Direction, and alſo the advantage of ſeeing the *Treatment and Manner of preſcribing for the various Diſorders incident to Child-bearing Women and Infants*;---a Branch of Science eſſentially neceſſary to all thoſe who intend to practiſe Midwifery.---Theſe pupils will likewiſe have the privilege of being preſent at *laborious and preternatural Labours*, or whenever there is *Danger* or *Difficulty*; and to whom the Nature of the caſe, and the Operation it requires, will be diſtinctly ſhewn, and clearly explained, as well as the *Medicinal Treatment* afterwards requiſite for the patient's Recovery. They will alſo have the liberty of taking down ſuch *remarkable Caſes* as occur during the time of their attendance, with the *Clinical Obſervations* applicable to each.

ity Gui- } Gentlemen who are *perpetual Pupils*, will have many *extra Advantages*,
Pupils. } the particulars of which may be known by further enquiry of Dr. Leake.

aving } Such Gentlemen as want ſufficient Time to wait for Inſtruction, *&c.* in
ivileges. } the uſual Manner, will be allowed an Additional Number of Labours, with other Advantages tending to qualify them the ſooner; on paying in proportion for ſuch *extra Privileges*.

male } *Women* will be privately inſtructed, and duly qualified for their own prac-
pils. } tice, by being allowed to reſide in the Hoſpital.

Before the eſtabliſhment of *this Hoſpital*, in which (though yet in its infancy) upwards of *Twelve Hundred Women* have already been delivered; it was extremely diſagreeable to ſeek after Labours at a great diſtance, among the very *loweſt claſs of people*, in Alleys and remote parts of the Town, where a Number of Pupils were obliged to attend the ſame Patient:---From the indecency of this method, which ſtill prevails elſewhere, but at which the very *Hottentots* would bluſh; the Gentlemen were often expoſed to *Inſults*, and for all their Trouble, could acquire *very little Practical Knowledge*; becauſe, where ſo many were preſent at the Labour, beſides the confuſion it occaſioned, only one of them could properly be ſaid to deliver the Patient; and as they

they only touched her by turns, not one of the whole Number could exactly know the natural Progreſs of the Labour from beginning to end: On the contrary, *every Pupil*, after his Introduction at *this Hoſpital*, is called *ſingly* to the Labours, and attends her from firſt to laſt, without any other perſon's interfering, and with the ſame *Decorum* as if ſhe was *a private Patient of his own*.

*** An *additional Number of Patients* will now be admitted into *this Hoſpital*, by Order of the Governors, in conſequence of many new Subſcribers, Benefactions, and a ſecond Legacy, received in the year 1773; and will yearly ſo continue to increaſe in proportion to the Fund of the Charity.

The Advantage of attending a *Public Lying-in Hoſpital* is obvious; but, as it is an *unuſual Privilege*, and not hitherto univerſally known, it was neceſſary to mention Particulars, that every one intending to ſtudy *Midwifery*, may judge for himſelf, without being influenced by future Miſrepreſentation.---Beſides, it is preſumed, that a *Certificate* of Attendance at a *Public Hoſpital*, will carry with it more Credit and Conſequence, than that of being called to *caſual Labours* only.

It is here neceſſary to mention a very capital Inconvenience which many Gentlemen inadvertently fall into, viz. *That of deferring their Inſtructions in this Art, till within a few Months of their leaving London:* whereas it appeaars moſt eligible and proper for them to attend *Lectures in Midwifery*, together with thoſe of *Anatomy*; as theſe two Sciences mutually illuſtrate and explain each other.

The firſt Winter's Courſe of Lectures will begin the firſt *Monday* in *October*, at Five in the Evening, and regularly continue for *One Month*, from time to time, throughout the year, as advertiſed in the *public Papers*; and as the *Pupils* are introduced at the Hoſpital in rotation, according to the Date of their Commencement at Lectures; *ſuch as enter their Names early*, will be allowed to attend the Labours ſo much the ſooner on that Account; and to whom *a Syllabus of the Lectures* will be given at the Time of Commencement; and, for the future, *to ſuch only as are Pupils*.

Further Particulars may be known at the Doctor's Houſe, in Craven Street, or at the WESTMINSTER LYING-IN HOSPITAL, near the Bridge; which is commodiouſly ſituated for the Attendance of the *Pupils*, being nearly in a middle Space between *St. Thomas's*, *St. George's*, and *St. Bartholomew's Hoſpitals*.

Of

Of the Intent and real Advantage of an *Apparatus* in demonſtrating the Practical Part of *Midwifery*.

IT is here neceſſary to ſay ſomething on the Deſign of *Machinery*, or that *Apparatus* which is intended as an *artificial Subſtitute* for the real Bodies of *Women* and *Children*, on which to teach the Art of Midwifery.

In the *Practical Part of Midwifery*, there is a Kind of *Dexterity* required, which can never be taught by Deſcription;---nothing but Practice itſelf can adapt the Hand of the Pupil to the eaſy and judicious Performance of the ſeveral Operations in this Art.

It is true, that before any one can be deemed a Proficient in *Midwifery*, he muſt have frequent Opportunities of *real Practice*; but living Bodies are very improper Subjects for initiating Pupils in the Operative Part of this Art:---How then ſhall they begin to practiſe?---Not on real Subjects, but upon *artificial Bodies*, ſo *mechanically* and *naturally conſtructed*, as nearly to correſpond with the ſeveral Parts concerned in *Parturition*; but as *Machines badly conſtructed by Mechanics or Artificers*, who know nothing of their real Uſe, are ſo far from being ſerviceable, that they do much Harm, by miſinform-the Judgment of the Student, and giving him a falſe Idea of Nature, both in the *Touch*, *Figure*, and *Diſpoſition* of the ſeveral Parts; I was induced to beſtow no ſmall Labour and Expence on that *Apparatus*, upon which I now artificially demonſtrate the *ſeveral difficult Operations* of *Midwifery*; having for many Years been conſtantly making *Alterations* and *Improvements* in it, as upon *Trial* I diſcovered its Defects.

By the Uſe of *this Apparatus*, each *difficult Caſe* is reduced to a *Demonſtration*, which will afford the Student ſuch ſolid Introductory Knowledge as cannot be forgot;---For inſtance, he will become acquainted with the *Poſition* moſt conducive to a ſpeedy Delivery, and will acquire a certain Degree of Dexterity and Skill in the Application of the *different Inſtruments* uſed in *difficult Labours*; but particularly, in *preternatural Caſes*, he will learn the Method of *turning the Child* with more Eaſe to himſelf and Safety to the Mother, by Means of an *artificial Uterus* of a *new Conſtruction*, which contracts uniformly on the Body of the Infant, from the *Fundus* to the *Cervix Uteri*, and acts on the Hand of the Operator, with a greater or leſs Degree of Force as the Caſe requires, ſo as to give him the ſame Ideas of Difficulty as *really preſent themſelves in Nature*; and *in a Manner not hitherto demonſtrated by any other Apparatus*.

*** Such Gentlemen as have already attended Lectures, and are deſirous of further Improvement in the *practical Part of Midwifery* (on producing a *Certificate*) will be allowed to attend the *Hoſpital* after the *firſt Courſe*.

The *Apparatus* may be ſeen at Dr. *Leake*'s, in *Craven Street* in the *Strand*, *London*, by ſuch Gentlemen as propoſe to become Pupils.

An Account of the *Weſtminſter New Lying-in Hoſpital*, inſtituted A. D. 1765, and ſupported by Voluntary Subſcription.

The Right Honourable Earl PERCY, Preſident.

Sir *Harbord Harbord*, Bart.
Sir *Joſeph Mawbey*, Bart.
Lieut. General *Williamſon*,
} Vice-Preſidents. {
Major General *Deſaguliers*,
Major General *Boyd*,
Criſp Molineux, Eſq;

IN the Year 1765, Dr. John Leake, of *Craven Street* in the *Strand (of the College of Phyſicians, London)* purchaſed a Piece of Ground on a Building Leaſe on the *Surry* Side of *Weſtminſter Bridge*, and afterwards preſented to the Public the *Original Plan* for the Inſtitution of this Hoſpital:---As ſoon as the *Hoſpital* was built, by Public Subſcription, on the above Ground, he voluntarily, and without any Conſideration whatever, aſſigned over to ſix *Truſtees* choſen by the Governors at a *General Meeting*, all his Right and Claim to the above *Premiſes*, in Favour of this Charity; otherwiſe, in caſe it had not continued to ſubſiſt, the *Building* raiſed on his Ground would have legally become his own Property.

Being honoured with the Patronage of the Right Hon. Earl Percy, together with ſeveral Gentlemen of *Rank* and *Diſtinction*, and being alſo favoured with the Aſſiſtance of his *Friends* and the Public, which he is deſirous moſt reſpectfully to acknowledge; he at laſt had the Satisfaction of ſeeing this charitable Deſign carried into Execution, after the repeated Exertion of his utmoſt Endeavours to that End.

The Inſtitution of this Charity is principally deſigned for the Relief of thoſe Chidbearing Women who are the Wives of *poor induſtrious Tradeſmen*

or

or *diſtreſſed Houſekeepers*, who, either from *unavoidable Misfortunes*, or the Expence of maintaining large Families, are reduced to real Want; and alſo for the immediate Relief of indigent *Soldiers* and *Sailors' Wives*; but it being repreſented to the Governors of this Hoſpital, that great *Hardſhips* do ariſe to poor *unmarried Women with Child*, who *on that Account* are excluded elſewhere; in order to remove ſuch Inconveniences, and to render this Charity more *extenſively uſeful*, they have unanimouſly reſolved, at a *General Meeting*, not to require any *Certificates of Marriage* towards the Admiſſion of ſuch Women, as are otherwiſe properly recommended as *Objects of real Want*.---But leaſt the Perverſion of this Deſign ſhould tend to *encourage Licentiouſneſs*, they have thought proper to limit this Indulgence to the *firſt Time only*, in which ſuch Women have been unwarily ſeduced from the Paths of Virtue.---This Reſolution, being founded in *Humanity*, the Governors have, no doubt will meet with the univerſal Approbation of the Public; as ſeveral melancholy Inſtances have occurred, where *unfortunate Women*, when ſhut out from all *Shelter*,---deſtitute of *Hope*, *Money*, or *Friends*,---and wounded with *Shame* and *Contrition* for their paſt Indiſcretion, have been driven to *Deſpair* by ſuch complicated Miſery, and were tempted to *deſtroy themſelves* or to *murder* their *Infants!*

This Charity, from its *general Utility*, having hitherto met with great Encouragement from the Public, it is hoped, by the *Governors*, that the *Nobility* and Others, and alſo that Gentlemen of Rank in the *Army* and *Navy*, will follow the laudable Example of *thoſe*, by whoſe generous Munificence the *Building* was raiſed; being *One Hundred Feet* in Front, and large enough to contain *Seventy Beds*.

As no one is ſo *rich*, but he may become *poor*, nor any ſo *happy*, as to exclude the Poſſibility of being miſerable; it is earneſtly hoped, that all ſuch as have been ſucceſsful in the World, and live in Affluence and Plenty, will not withhold their Aſſiſtance from the *Poor* and *Needy*; but chearfully ſpare them a little, as a *grateful Acknowledgement to Providence for their own happier Fate*.

Dr. LEAKE attends in all *Caſes of Danger* or *Difficulty*; and in order to extend the Benefits of this Charity (at the Requeſt of the Governors) he will alſo give *Advice* every TUESDAY at Twelve o'Clock, at the ſaid Hoſpital, to ſuch *Poor* as ſhall then preſent themſelves to the Board as Out-Patients, for Relief in the *ſeveral Diſorders* incident to *Women and Children*.

SUBSCRIPTIONS and DONATIONS are received at Meſſ. DRUMMONDS and Co. Bankers, at *Charing Croſs*, or by the WEEKLY BOARD, at the *Hoſpital*, near *Weſtminſter Bridge*.

The Patients are attended by

- Dr. *John Leake*, Phyſician to the Hoſpital.
- Dr. *James Ford*, Phyſician Extraordinary.
- Dr. *Richard Huck*, Conſulting Phyſician.
- Mr. *Lewis Poignand*, Surgeon.
- Two Viſiting Apothecaries, and
- A Matron.

SYLLABUS

OF THE

LECTURES.

INTRODUCTORY LECTURE.

AN Hiſtorical View of the Riſe, Progreſs, and preſent State of Midwifery; together with the Theory and Practice of the ancient Writers.

A general Account of the Doctrine, Writings, and Improvements of the moſt eminent *Modern Profeſſors* of Midwifery; particularly, thoſe who now give public Lectures on that Science in different Parts of Europe.

Of the Means moſt conducive to a perfect Knowledge of the Theory and Practice of Midwifery.

Of the Qualification and Deportment of an *Accoucheur*.

LECTURE

LECTURE II.

Anatomy of the Female Pelvis, with a Deſcription of the Form, Situation and Connexion of the ſeveral Bones of which it is made up, viz. the Os Sacrum, Coccyx and Oſſa innominata, with their Ligaments, Cartilages and ſurrounding Muſcles.

The Diviſion of the Oſſa innominata into their ſeveral Bones, viz.

Ilium,
Iſchium, &
Pubis.

The Dimenſions of a well-formed Pelvis at its Brim and Bottom;---its Extent from Side to Side, and from the poſterior to the anterior Part: with its poſterior, anterior and lateral Depth.

The Figure of its Cavity, and the Difference between a well-formed and *diſtorted Pelvis*; alſo the Marks which diſtinguiſh the *Male* from the *Female Pelvis*.

The Cauſes of a diſtorted or *Narrow Pelvis*, and its dangerous Conſequence to Child-bearing Women.

Of the Shape, Structure, and different Diameters of the Fœtal Cranium; with the Advantage of knowing the *relative Proportion of the Infant's Head to the Pelvis*, and how it paſſes through its Cavity in different Directions.

Remarks on the Membranous Connexion of the Bones which compoſe the Infant's Scull;---different from the Adult;---and how correſponding with the Intention of Nature in facilitating the Child's Birth.

LECTURE III.

Of the Female Organs of Generation, viz.

Externally the { Pudenda, Meatus Urinarius, Clitoris, & Nymphæ.

Internally the { Hymen, Vagina, Os internum, & Uterus; Fallopian Tubes, Ovaria and Ligaments.

Contiguous Parts, { Vesica Urinaria, Rectum & Perinæum.

Of the Figure of the Uterus in its Virgin State and after Pregnancy; and also of the gradual Distention of the Fundus and Cervix Uteri at different Periods of Gestation.

The several Parts will be shewn in *Situ Naturæ*, with *Physiological Observations* on their Structure and Use.

LECTURE IV.

Of the several Disorders incident to the Parts of Generation, and the Method of their Cure, viz.

Of the Prolapsus Vaginæ & Uteri, and Method of treating those Disorders.

The different *Pessaries* invented and recommended for the Relief of the above Complaints, and Manner of their Application.

Stone in the Bladder,---its bad Consequence to Women in Labour.---Painful Symptoms thence arising---how relieved.

Of Ruptures in general, and of a particular Species of Hernia peculiar to Women.

---The imperforated Hymen and Operation neceſſary for its Cure.

LECTURE V.

Of the Meſtrual Flux.

The various Hypotheſes laid down by Phyſiologiſts to account for that extraordinary Phænomenon.

Of the Change produced in the female Conſtitution, at the Age of Puberty.

The Menſes in their morbid State, viz. when irregular, obſtructed, or too large in quantity.

Of the deviating Menſes.

The Ceſſation of the Menſes, and Diſorders from thence ariſing.

LECTURE VI.

Of the *Chloroſis*, *Hyſteric Affections*, and Furor Uterinus.

Of the *Fluor Albus*; and how diſtinguiſhed from a Gonorrhæa virulenta, from the Menſes decolores, or Diſcharge of an Ulcer in the Womb; with their ſeveral Cauſes, and *Method of Cure*.

Dropſy of the Ovaria.

Of the cancerous Womb; Schirrous and Cancerous Breaſt, and of the Effects of *Cicuta*; *Vegeto mineral Water*, and other Medicines in thoſe Diſorders.

Of Sterility or Barrenneſs, with its ſeveral Cauſes, as relative to both Sexes; and of the Means moſt conducive to remedy ſuch Defects.

LECTURE VII.

Of Generation.

The ancient and modern Doctrine of Conception, and the various Opinions advanced by different Authors on that Subject.

Of the Genitura of the Ancients.

The Oviparous System of *Harvey*, *Malphigius* and *De Graaf*;---Animalcular System of *Hammius*, *Leeuwenhoek* and *Hartsoker*, and the corpuscular organical System of *M. Buffon*.

Of the *impregnated Ovum*, and its Descent into the Uterus by the Fallopian Tube; with the progressive Order in which the several Parts of the Embryo unfold themselves in Magnitude and Figure, from Conception to the Time of Birth.

Viviparous and Oviparous Animals,---their Analogy considered in the Manner of their Production.

Æquivocal Generation;---exploded by the Experiments of *Redi*.

Of *Twins*, Superfœtation, false Conceptions, and Moles.

---Extra-uterine Fœtuses and the Production of Monsters; with Remarks on the Cases mentioned by *Licetus*, *&c.*

The Term of a Woman's going with Child.

LECTURE VIII.

Of the Complaints which follow Conception; with their various Cauſes, and palliative Method of Cure, viz.

The *Sign of Conception*,---how diſtinguiſhed from an Obſtruction of the Cataminia, the encyſted Dropſy, or other equivocal Marks of Pregnancy.

Nauſea, Vomiting, and Longing for unnatural Subſtances.

Of the Hæmorrhoids, Coſtiveneſs, Anaſarcous Swelling of the Legs, Cough and Difficulty of Breathing; and alſo of the ſeveral other Diſorders which ariſe from the Diſtention of the Uterus and Compreſſion of the Viſcera, in the laſt Months of Pregnancy.

The Treatment and Cure of the Gonorrhæa Virulenta and Lues Venerea, during Pregnancy.

Of Abortion from a Fault of the Mother's Conſtitution;---the Diſeaſes of the Fœtus, or preternatural Conformation of the Uterus;--from the inordinate Paſſions of the Mind;--external Violence, or any Cauſe which occaſions a Separation of the Placenta from the Womb.

Abortion,--moſt frequent in the three firſt Months of Geſtation;--and why.

Of the Remedies moſt effectual in preventing or relieving the Symptoms of Abortion.

---Obſtruction of Urine, at the latter End of Pregnancy.

Rules and Cautions for the Conduct and Regimen of Women during the ſeveral ſtages of Pregnancy.

LECTURE IX.

Of the Fœtus.

Of the Situation of the Fœtus in Utero.

Of the *Placenta* and its Membranes; and of the Quantity, Quality and Uſe of the *Liquor Amnii*, or contained Waters.

The *Funis Umbilicalis* or Navel-String, and the Courſe of its Veſſels traced to their Origin, with their ſeveral Connexions and Dependencies, reſpecting the Mother and Child.

Of the *Nutrition* and *Circulation* of the Blood in the Fœtus, and of the Parts peculiar to it, viz. *Foramen Ovale*, *Canalis arterioſus* and *Ductus Venoſus*, &c.

Of the *Allantois* and *Urachus*.

Difference between the Fœtus and Adult, and of the Change produced in the firſt by the Effect of *Reſpiration*.

The moſt effectual Methods of recovering Children, when born *apparently dead*.

Experiment to diſcover, whether the Infant was *ſtill-born* or deſtroyed after the Birth; with neceſſary Cautions in Reports to a *Jury*, or in Caſes of Evidence againſt the accuſed.

*** The ſeveral Parts peculiar to the Fœtus, as they appear in Nature, will be demonſtrated by *Anatomical Preparations*.

LECTURE X.

The Signs which precede or accompany true Labour.

Of the Nature, Cauſe and Effects of *Labour Pains*, and of the expulſive Force of the Uterus in its gravid State.

The *Method of Touching* in the firſt Months of Pregnancy, and at the time of Labour; with the Information thence ariſing, viz. Whether the Woman is with Child or not; and whether in danger of Miſcarriage; alſo what

Changes of the Os Uteri indicate Labour, and diſtinguiſh the *true Pains* from thoſe which are *ſpurious*;---how to promote the one and relieve the other.

The great Advantage of being thoroughly converſant in the *Art of Touching*, and of truly diſtinguiſhing the preſenting Parts; with Cautions and Remarks in doubtful Caſes.

Of the gradual Dilatation of the Os Uteri, by the Protruſion of the Membranes, or Preſſure of the Child's Head.

Of the too early Rupture of the Membranes and Diſcharge of the Waters.

---The preternatural Strength or Rigidity of the Membranes, and how the Progreſs of Labour may be retarded in ſuch Caſes; with the Methods to remedy theſe Inconveniencies.

The Signs of a *dead Child*.

The bad Conſequence of haſtening Labour unſeaſonably in natural Caſes, and the Danger of Delays or of giving *ſtimulating Medicines*, where the Child preſents in a wrong Poſition.

LECTURE XI.

The Diviſion of Labours, viz. *Natural*, *Difficult*, and *Preternatural*.

Of the Poſition moſt conducive to the ſpeedy Delivery of the Woman, in the ſeveral Kinds of Labour; and the Methods practiſed in different Countries on that Occaſion.

*** A natural Labour artificially repreſented on the *Apparatus*, (in a Manner not hitherto effected) diſtinctly ſhewing the gradual Dilatation of the

the Os Uteri and Protruſion of the *Membranes*, with their alternate *Diſtention* and *Relaxation*, as the Pains come on and go off.

The Rupture of the Membranes and Evacuation of the Waters exactly imitated.

An *artificial Demonſtration of the Womb's progreſſive Contraction* as the Child advances in the Birth.

The Manner how the Child's Head preſents to the Birth in natural Caſes, ---the Turns it makes in paſſing through the Pelvis, and likewiſe of *guarding the Perinæum* from Laceration.

Ould's Obſervation, reſpecting the Poſition of the Head in natural Caſes.

The Force of Preſſure on the Infant's Head exemplified by an *artificial Fœtus*, ſo conſtructed as to allow of the ſame Motion in the Bones of the Cranium as in that of the real Child.

Of Tying and Cutting the Funis, and *extracting the Placenta*; with Remarks on the Conduct of Animals in the Diviſion of the Funis; and likewiſe on the *Orbicularis Muſcle* in Fundo Uteri, as deſcribed by *Ruyſch*.

The Method of diſcovering whether there is a ſecond Child or not.

LECTURE XII.

Of *Difficult Labours*, where extraordinary Aſſiſtance is required.

The various Cauſes of difficult or laborious Caſes; particularly, the Weakneſs of the Patient and Abſence of her Pains;---Anxiety of Mind, Floodings,

or

or other profuſe Evacuations;---A narrow or diſtorted Pelvis,---Rigidity or preternatural Conſtriction of the Paſſages,---Induration of the Os Uteri, or wrong Poſition of the Child's Head;---its being too large, over oſſified, or dropſical.

General Rules how to aſſiſt in the various Kinds of Laborious Caſes.

Daventer's Sentiments on the Obliquities of the Womb conſidered.

The Method of Practice when the Birth is retarded by the twiſting of the Funis round the Child's Neck.

Of the Uſe and Abuſe of *Inſtruments* in general; with a comparative View of their ſeveral Advantages and Defects, reſulting from their Mechanical Structure, Action and Manner of Application.

Of *Palfyn*'s and *Levret*'s long Forceps, and alſo of thoſe recommended by *Smellie*, *&c.*

Of the Vectis or Lever invented and uſed by *Roonhuyſe*.

*** The Deſcription and Uſe of the Author's NEW FORCEPS, with three Blades, in which the mechanical Powers of the *Forceps* and *Lever* are combined.

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By a late PUPIL of Dr. LEAKE's.

Printed for R. Baldwin, in Pater-noſter-Row, London.

LECTURE

LECTURE XIII.

Of the Vertex
---- Fontanelle
---- Face
---- Ear
} presenting.

*** A difficult Labour represented, by an *Artificial Woman and Child*, shewing the Method of applying the Forceps, and other Kinds of Instruments, in the several Positions of the Child's Head.

Levret's Method of Practice when the *Face is to the Pubes*.

The Method of discovering by the Touch the Narrowness of the Pelvis, or extraordinary Bulk of the Child's Head.

Practical Cautions in the Application of the Forceps, and Extraction of the Head.

Cases where the Forceps cannot be applied with equal Success, altho' the Head presents.

Of *the particular Cases which require Instruments*; with the Degrees of Danger and Difficulty attending each; and at what time their Application becomes absolutely necessary for the Preservation of the Mother.

Crotchets and Perforators,---in what Cases their Application condemned by *Crantz* of Vienna. *Rædererus*, Professor of Midwifery at Gottingen,---censured by the above author for inculcating their frequent Use.

Of the Symptoms which denote immediate Danger.

Of the Terebra Occulta, Long Sciffars and Scalpel Ring; with the Manner of opening the Child's Head, when too large to pass, and the Life of the Mother is in Danger;---also how to extract it safely by the Forceps, Crotchet or Tire-Tête of *Mauriceau*.

LECTURE XIV.

Of *preternatural Labours*, where the Child is to be turned and brought by the Feet.

The Method of turning the Child.

Mechanical Knowledge applied to the Operation of Turning the Child, ---how uſeful.

The Uſe of the Nooſe, and Manner of fixing it.

The dangerous Conſequence of too much Violence or injudicious Aſſiſtance in the above Caſes.

Of the *ruptured Womb*.

Practical Rules and Cautions in the various Kinds of preternatural Caſes, where the Child is to be turned.

Remarks on the Inſufficiency and Impropriety of a *Glaſs Uterus*, in demonſtrating the Manner how the Child is to be turned, in Twin Caſes, or otherwiſe.

*** The ſeveral Kinds of *preternatural Labours* will be artificially repreſented on Machinery.

LECTURE XV.

The Method of delivering when the Feet, Knees or Breech preſent.

How to aſſiſt where the Child preſents with the Breech, and cannot ſafely be turned and brought by the Feet.

Of

Of the Child laying acroſs the Uterus, and preſenting with its Back, Belly, or Sides.

Of the *Placenta* preſenting looſe, or adhering to the Os Uteri; and how to act in the above Caſes for the Preſervation of the Mother.

LECTURE XVI.

Of the *Funis Umbilicalis* preſenting before the Child's Head, and the Danger of its Compreſſion in the Paſſage.

The Method of delivering where the Arm or Shoulder preſent, artificially demonſtrated by the *Apparatus*.

Of the tranſverſe Poſition of the Arms between the Hind-head and Pubes, where the Child is brought Footling.

Of the ſafeſt and moſt expeditious Methods of *extracting the Head* when detained by the Narrowneſs of the Pelvis; and of the Danger of Delays or much Violence on that Occaſion.

The Manner of extracting the Child's Head when ſeparated from the Body and left in Utero; with the Uſe of *Amand*'s Net, the Terebra Occulta, Tire-Tête or Forceps.

LECTURE XVII.

Of the Delivery of *Twins* or a Plurality of Children, and the Extraction of their Placentæ; with Remarks on cutting and tying the Funis of the firſt-born Infant.

Of the *Birth of Monſters*, and Extraction of falſe Conceptions, Moles or Polypoſe Tumours of the Uterus.

Of the *Cæſarian Operation*; with Obſervations and Remarks on the Caſes mentioned by *Rouſſetus* and others.

LECTURE XVIII.

Of *Uterine Hæmorrhages*, *Convulſions*, and *acute Fevers* in the State of Pregnancy.

Of *Floodings* before Delivery, from external Violence,---Fevers,---the Paſſions of the Mind, or any Cauſe that will preternaturally encreaſe the Momentum of the Blood.

Of *Floodings* after Delivery---from the violent Extraction of the Placenta, the Diſtention of the Womb by a ſecond Child, or the Want of its due Contraction, from a general Weakneſs of the Solids.

Convulſions;---*and acute Fevers*, their various Cauſes and medical Treatment.

Practical Commentaries on ſuch of the Aphoriſms of *Hippocrates*, *Mauriceau*, &c. as relate to the Diſeaſes moſt fatal to Women.

LECTURE XIX.

The Treatment of Women after Delivery;---of the Regimen then neceſſary, and Means moſt conducive to their Recovery.

Of the Maladies ſometimes conſequent of Delivery, viz. After-pains, Inflammation, Contuſion, or Rupture of the Uterus.

Laceration of the Bladder or Perinæum;---alſo of the Medicines and Applications neceſſary in the Intention of Cure.

Obſtruction or Incontinence of Urine, and the *Method of paſſing the Catheter*.

Inverſion of the Womb, and Prolapſion of the Rectum.

Of the Lochia, when obſtructed, or redundant in Quantity; and of the Effects of *Opiates* and other Medicines in the above Caſes.

LECTURE XX.

*** Animadverſions on the Nature and Cauſe of the acute, epidemical Fever, peculiar to Women after Delivery, commonly called the *Child-bed Fever*;---with *Clinical Obſervations* and Remarks towards the moſt effectual Methods of its cure.

Of the Milk Fever, and Inflammation or Abſceſs of the Breaſts.

Topical Applications for repelling the Milk; pernicious, and why.

Of the Miliary Eruption, Diarrhæa, or other Evacuations ſupervening the Milk Fever or Obſtruction of the Lochia.

The *Coloſtrum*, or firſt Milk;---its Qualities and Effects on the ſucking Infant.

Of the Nature and Secretion of the Milk, and how rendered medicinal to the Infant.

The Evacuations neceſſary at the End of the Month.

LECTURE XXI.

The Treatment and Regimen of new-born Infants.

Of the Diſorders in general attending the *firſt State of Infancy*, and the moſt approved Methods of Cure.

Of Fractures and Diſlocations, and of a Species of the *Hydrocele* peculiar to new-born Infants.

Of the
- Mould-ſhot Head,
- Hydrocephalus, and
- Spina Biſida.
- Hare Lip,---
- Confinement of the Tongue, and
- Obſtruction of the natural Paſſages.

Of the { Hernia Congenita,
Icterus Infantum,
Dentition, and
Dyſentery.

Of the { Tinea,
Apthæ, and
Cruſta Lactea.

LECTURE XXII.

Of the acute and chronical Diſeaſes, in general, incident to the *ſecond State of Infancy*;---their Pathology and Method of Cure.

Of the { Small-pox, and the Artificial Method of communicating that Diſeaſe by Inoculation.
Meaſles,
Tuſſis Convulſiva, and
Epilepſia Infantum.

Of the { Rickets,
Atrophia, and
Diſorders ariſing from Worms.
Scrophula.
Lues Venerea, and other hereditary Diſeaſes.

Practical Cautions reſpecting the indiſcriminate Uſe of *Bleeding*, *Bliſters*, and *Opiates*, in the Diſeaſes of Children.

Directions for the Choice of a *Wet-Nurſe*,---the Indications to be taken from her Habit of Body and the Quality of her Milk; with Rules for the Regulation of her Diet in Diſorders incident to the Child.

THE END.